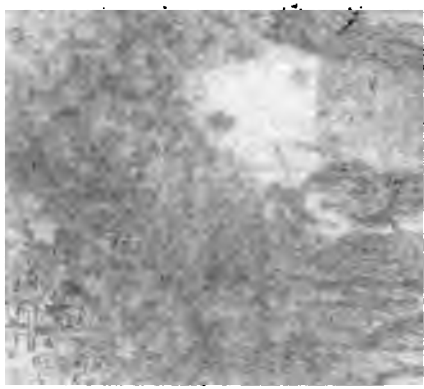

The
Plants
OF THE
Bible

GRAPE-VINE.

WILLOW-TREE.



THE

PLANTS OF THE BIBLE.

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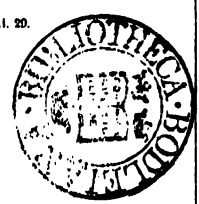
"Behold the fig-tree, and all the trees."—LUKE xxi. 29.



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PREFACE.

EVERYTHING mentioned in the Bible is worthy of our attentive consideration. The very words of the original text, written by the inspiration of the Holy Spirit, call for diligent study; and the more we examine them in dependence on the aid of that Spirit, the more light do we find shining upon them. The student of God's Word cannot search too deeply or too minutely into its hidden treasures. The most learned linguist finds here ample scope for all his lore, and the accomplished naturalist may bring to bear upon this work all the resources of science.

In the Sacred Writings there are frequent allusions made to the Vegetable Kingdom. Our blessed Saviour drew beautiful illustrations from plants, and he calls upon us to consider the lilies of the field. While plants, like the other works of the Almighty Creator, are well worthy of study, they

are especially so when we view them in connection with Scripture. In order to see fully the lesson which is to be taught, it is necessary that we should be acquainted with the plant to which reference is made. Want of knowledge in this respect has hid much of the beauty and force of many a parable.

At the time when our excellent English version was made, there was comparatively little known in regard to the plants of Palestine, and hence the meaning of the Hebrew and Greek names was often doubtfully given. As the science of Botany has advanced, and more particularly as the knowledge of the Flora of the East has increased, additional light has been thrown on the plants noticed in the Bible. Celsius, Rosenmüller, Royle, and many others, have done much to elucidate Scripture Botany; and although there are still many difficulties in the way of a complete Bible Flora, still there has been a great advance in this department of Biblical learning. It has been thought that such a work as the present might be useful in calling attention to this important subject, and in inducing those who may visit Palestine to turn their powers of observation to useful account. It is to be regretted that, of the numerous visitors at the present day to the Holy Land, few have turned their

thoughts in this direction, and that thus many valuable opportunities for acquiring botanical information have been lost. The Plants of the Bible can be fully worked out only by those who travel in Eastern countries, and who are acquainted with Hebrew, Syriac, Arabic, and other cognate languages. A great deal of valuable information may be gathered on the spot which cannot be otherwise obtained. Let us hope that, ere long, travellers will have greater facilities for prosecuting with safety their researches in that interesting, although now deserted land; and that some botanist may soon arise who will be able to write with scientific accuracy on all the Scripture plants, from the Cedar on Lebanon even to the Hyssop that groweth out of the wall.

CONTENTS.

TREES AND SHRUBS.

HERBACEOUS PLANTS.


TREES AND SHRUBS.

ALMOND-TREE.

(*Amygdalus communis.*)

"The almond-tree shall flourish."—ECCLES. xii. 5.

THE almond-tree is the *Amygdalus communis* of botanists. It is referred to in Scripture under the Hebrew name of *Shaked.* The Hebrew word *Luz*, which occurs in Genesis xxx. 37, and which has been translated *hazel*, is considered to be another name for the almond. *Luz* is supposed to refer to the tree, and *Shaked* to the fruit of the almond. Rosenmüller thinks that the former name designates the wild tree, and the latter the cultivated one. The tree belongs to the class Icosandria, order Monogynia, of the Linnean system, and to the natural order Rosaceæ, or the Rose-family. It is included under the section *Amygdaleæ* or *Drupiferæ* of that family,—distinguished by the nature of the fruit, which has a kernel, enclosed in a shell or stone, and surrounded by a more or less succulent covering. In this section are included also the peach, the nectarine, the apricot, the plum, and the cherry. The leaves of the tree are long and narrow, with an

acute point and saw-like margin. The tree is a native of Asia and Barbary. It is cultivated extensively in the south of Europe, and is also met with in gardens in Britain. It grows in Syria and Palestine. From the fact that Jacob told his sons to take almonds as a present to Joseph (Gen. xliii. 11), it has been inferred that the plant did not grow naturally in Egypt, and moreover, that, notwithstanding the famine in Canaan, it continued to flourish and bear fruit.

The almond-tree blossoms very early in the season. Kitto mentions it among the trees of Palestine that flower in January. The flowers are of a pinkish colour, and are produced before the leaves, so as to be very conspicuous. This hastening of the period of flowering seems to be alluded to in Jeremiah i. 11, 12—"What seest thou? and I said, I see a rod of an almond-tree. Then said the Lord unto me, Thou hast well seen: for I will hasten my word to perform it." The Hebrew name of *shaked* is apparently derived from the word *shakad*, meaning haste or waking early.

In Ecclesiastes xii. 5, it is said, "The almond-tree shall flourish." This has often been supposed to refer to the resemblance between the flowers of the almond and the hoary locks of old age. But this interpretation is not borne out by an examination of the blossom of the almond, which is pinkish, and not pure white. The passage rather appears to refer to the hastening of old

age. As the almond-tree ushers in spring, so do the signs referred to in the context indicate the coming of old age and death. In Numbers xvii. Moses is stated to have laid up twelve rods of the princes of Israel before the Lord in the tabernacle of witness; and on the morrow, "the rod of Aaron for the house of Levi was budded, and brought forth buds, and bloomed blossoms, and yielded almonds."

The fruit of the almond was used to furnish a model for certain kinds of ornamental carved work. Thus, in speaking of the candlestick in the tabernacle, Moses says that its bowls were made like unto almonds (Exod. xxv. 33, 34; xxxvii. 19, 20). Pieces of crystal called "almonds" are still used by manufacturers in the adorning of cut glass chandeliers. The kernel or seed of the almond supplies oil. Sweet almonds (*Amygdalus communis* var. *dulcis*) contain a fixed oil and emulsine; while bitter almonds (*Amygdalus communis* var. *amara*) contain, in addition, a nitrogenous substance called amygdaline, which, by combination with emulsine, produces a volatile oil and prussic acid. Bitter almonds, when eaten in small quantity, sometimes produce nettlerash, and when taken in large quantity, they may cause poisoning.

In 1858 there were imported into Britain 33,170 cwts. of sweet almonds, and 8,370 cwts. of bitter almonds.

BOX-TREE.

(*Buxus sempervirens.*)

"I will set in the desert the fir-tree, and the pine, and the box-tree together."—ISA. xli. 19.

THE box-tree is the *Buxus sempervirens* of botanists. It is mentioned in the Bible under the Hebrew name of *Teashur*. The tree belongs to the class Monœcia, order Tetrandria, of the Linnean system, and to the natural order Euphorbiaceæ, or the Spurgewort family. The plants of this order have peculiar involucrate flowers, often without any perianth, and their fruit is usually composed of three carpels, which separate in an elastic manner when ripe. They abound in milky juice, which has in general acrid and poisonous qualities. Starch as well as oils and caoutchouc are procured from many of the species.

The box is a native of most parts of Europe, and grows well in England, as at Boxhill, in Surrey. It is prized as an ornamental evergreen; and in a dwarf state is used for garden borders. Its wood, imported from the Levant, is used by the wood-engraver, the turner, the mathematical instrument maker, the comb and toy maker,

and others. The wood is hard and durable, and was formerly used for tablets which were covered with wax and used for writing. The practice of inlaying the box-wood with ivory is noticed by ancient authors. Thus Virgil says :—

> Aut collo decus, aut capiti ; vel quale per artem
> Inclusum buxo, aut Oriciâ terebintho,
> Lucet ebur. Æneid x. 135.

The prophet Isaiah refers to the box as one of the trees fitted to beautify the wilderness and the desert : "I will plant in the wilderness the cedar, the shittah-tree [*Acacia Seyal*], the myrtle, and the oil-tree [olive-tree] ; I will set in the desert the fir-tree, the pine, and the box-tree together" (xli. 19). Again, in referring to the glory of the latter days, he speaks of the box as adorning the Lord's temple : "The glory of Lebanon shall come unto thee, the fir-tree, the pine-tree, and the box together, to beautify the place of my sanctuary" (lx. 13). Royle says, "The box-tree, being a native of mountainous regions, was peculiarly adapted to the calcareous formations of Mount Lebanon, and therefore likely to be brought from thence with the coniferous woods for the building of the temple, and it was well suited to change the face of the desert." The prophet's prediction, however, seems to have reference to the trees of righteousness, the planting of the Lord (Isa. lxi. 3), and to bring before us the members of Christ's true Church, differing

in many particulars, but all enjoying sweet communion, and worshipping the Lord together.

The prophet Ezekiel (xxvii. 6), when describing the commerce of Tyre, uses the word *ashur*, which, by most commentators, is supposed to be a contraction of *teashur*, or box. The translation of the passage should probably be—" Of the oaks of Bashan have they made their oars; the benches of the rowers have they made of *ashur-wood* (box-wood), inlaid with ivory, brought out of the isles of Chittim" (the isles of Greece). Thus, in place of *ashurites*, as in our authorised version, the word *ashur-wood* ought to be substituted. It is conjectured that Corsica and Sardinia may have been included among the isles of Chittim whence box-wood was brought to Judea. Pliny and Theophrastus mention that Corsica was famous for its box-trees. Another species, called *Buxus balearica*, Turkey-box, is found in the Balearic isles. Its wood is also much used.

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BAY-TREE.

(*Laurus nobilis.*)

"Spreading like a green bay-tree."—Ps. xxxvii. 35.

THE plant called Bay-tree in the Bible is supposed to be the sweet-bay,—the *Laurus nobilis* of botanists. It belongs to the class Enneandria and order Monogynia of the Linnean system, and to the natural order Lauraceæ, or the Laurel family. The laurels are aromatic and fragrant plants, yielding fixed and volatile oils, as well as camphor. They have dotted leaves, stamens partly fertile and partly abortive, the former having anthers opening by valves, and their fruit is a berry or drupe. The sweet-bay—the *Ezrach* of the Hebrew—is an evergreen tree, attaining the height of twenty or thirty feet, common in the south of Europe, and found also in Palestine. At the present day it is said to luxuriate in the old gardens of Tyre and Sidon, and beside some forgotten towers and deserted wine-presses in the Holy Land.

The tree yields a green oil, denominated oil of bays. Its branches were used for crowning the victors in the

ancient games of Greece and Rome, as well as for decorating the brow of the poet.

This and the other species of true laurel must not be confounded with the plants commonly called laurels in gardens. The latter consist of the cherry laurel and the Portugal laurel, which belong to a totally different order of plants, namely, to the same section of the rose-family as the almond and plum. The ratafia odour emitted by the bruised leaves of these garden laurels is very different from the aromatic perfume given out by the sweet-bay leaves. The cherry-laurel water furnished by the large-leaved bay-laurel contains prussic acid, and has consequently poisonous qualities. In this respect the plant resembles the bitter almond. Another garden plant, denominated Laurustinus, must also be distinguished from the sweet-bay; it is *Viburnum Tinus* of botanists, and belongs to the natural order *Caprifoliaceæ*.

The Psalmist, in Psalm xxxvii. 35, thus alludes to the laurel now under consideration—"I have seen the wicked in great power, and spreading himself like a green bay-tree." The vigour and beauty of the tree made it a fit emblem of prosperity, and its association with the fame of the victor and the poet suggested the idea of the honour which cometh from man.

Royle says—"The cause why the laurel is not more frequently mentioned in Scripture is probably because it was never very common in Palestine; as otherwise, from

its pleasing appearance, grateful shade, and the agreeable odour of its leaves, it could hardly have failed to attract attention." In the neighbourhood of Antioch the tree is said to be abundant. Hasselquist suggests that the rose-bay, the *Nerium Oleander* of botanists, might be the plant referred to by the Psalmist. It grows by the sides of streams in some parts of Judea, and is conspicuous alike for its foliage as for its showy flowers. The perfume of the oleanders around the Lake of Tiberias has attracted the notice of travellers. Royle and others think that the oleander is the *Rhodon*, or rose, of the Apocrypha.

Some commentators suppose that the term Ezrach applies to a tree grown in its native soil, and not to any special tree, such as the bay.

CEDAR-TREE OF LEBANON.

(*Cedrus Libani.*)

"The boughs thereof were like the goodly cedars."—Ps. lxxx. 10.

THE cedar-tree of Lebanon is noticed in the Bible under the Hebrew name of *Eres* or *Æres*. It is probable, however, that this name was also applied to other allied plants. The Arabs call the tree *arz* or *ars*. It is the *Cedrus Libani* of botanists, and belongs to the class Monœcia and order Monadelphia of the Linnean system, and to the natural order Coniferæ or the Cone-bearing family, in which it is associated with the pines, firs, spruces, and larches.

In early times, the cedar appears to have grown abundantly on Lebanon, and to have proved its distinguishing feature. Hence it was called "the glory of Lebanon" (Isa. xxxv. 2; lx. 13). In various passages of the Old Testament, we read of the cedars of Lebanon sent by Hiram, King of Tyre, for the building of David's house, of the temple at Jerusalem, and of Solomon's house (2 Sam. v. 11; vii. 2, 7; 1 Kings v. 6, 8, 10; vi. 9, 10, 15, 16, 18, 20; vii. 2, 3, 7, 11, 12; ix. 11: 1 Chron.

xvii. 6; 2 Chron. ii. 8). Beams, boards, pillars, walls, floor, ceiling, throne, and altar of cedar are mentioned. This timber was employed in consequence of its superior quality. It is stated that Solomon "made cedars to be as the sycomore trees [sycomore fig-trees] that are in the vale (or in the low plains), for abundance" (1 Kings x. 27; 2 Chron. ix. 27). Travellers tell us that there are still numerous cedars on Lebanon. Dr. Hooker says that "Cedars are found on the mountains of Algeria, on the whole range of Taurus, and in the Kedesha valley of Lebanon. In the Kedesha valley the number of trees is about four hundred. They are of various sizes, from about eighteen inches to upwards of forty feet in girth."

The cedar of Lebanon is a wide-spreading evergreen tree, from fifty to eighty feet in height, with numerous large horizontal branches. Ezekiel, when describing the cedar, speaks of its high stature, its top among the thick boughs, its multiplied boughs, its long branches, and its shadowing shroud (Ezek. xxxi. 3-9). The goodly cedars, or cedars of God, are mentioned in Ps. lxxx. 10, and excellent cedars, in Song of Sol. v. 15. Isaiah speaks of the cedars of Lebanon being high and lifted up (Isa. ii. 13); and of the tall cedars (xxxvii. 24). As the branches extended, so did the roots, and thus the tree was firmly fixed in the soil, and enabled to withstand the violence of storms. Hence the prophet Hosea says, "He shall cast forth his roots as Lebanon" (Hos. xiv. 5).

The watering of the roots by means of the streams of Lebanon is referred to by Ezekiel in the passage already noticed. The tree was distinguished for its exalted and vigorous growth; hence it is singled out among those on which Solomon wrote: "He spake of trees, from the cedar-tree that is in Lebanon, even unto the hyssop [caper-bush] which springeth out of the wall" (1 Kings iv. 33). The righteous are represented as growing like the cedar-trees of Lebanon (Ps. xcii. 12); and Israel like the cedar-trees beside the waters (Numb. xxiv. 6). The wood of the cedar is reddish-white, and is easily worked. The tree yields a sweet-smelling resin, which is alluded to in Scripture as "the smell of Lebanon" (Song of Sol. iv. 11; Hos. xiv. 6).

It has been supposed that the cedar wood mentioned in Leviticus xiv. 4, and Numbers xix. 6, was the produce of a fragrant species of juniper plentiful in the desert, and growing in crevices of Sinai. The cedar-wood used for pencils at the present day is the produce of *Juniperus bermudiana*, a native of the West Indies. In some heathen countries species of juniper are used as incense on account of their fragrance. *Pinus Halepensis* and *Juniperas excelsa* grow along with cedars on Lebanon.

Cedar is also mentioned in the following passages:—2 Kings xix. 23; Ezra iii. 7; Song of Sol. v. 17; viii. 9; Isa. ix. 10; xiv. 8; xliv. 14; Jer. xxii. 7, 14, 23; Ezek. xvii. 3, 22, 23; xxvii. 5; Amos ii. 9; Zech. xi. 1, 2.

CINNAMON-TREE.

Page 27

CYPRESS-TREE.

Page 28

CINNAMON-TREE.

(*Cinnamomum zeylanicum.*)

"Calamus and cinnamon, with all trees of frankincense."—Song of Sol. iv. 14.

CINNAMON is mentioned in several places in the Old Testament, under the Hebrew name of *Kinnamon.* The plant is *Cinnamomum zeylanicum* of botanists. It belongs to the class Enneandria and order Monogynia of the Linnean system, and to the natural order Lauraceæ or the Laurel family. In this order are found many aromatic fragrant plants, yielding volatile oils and tonic barks. (See the description of the *Bay-tree*). The plant grows in India, and its bark, under the name of cinnamon, is imported at the present day from Ceylon, and also from the Malabar coast, in bales and chests, the bundles weighing about one pound each. It was imported into India by the Phœnicians or the Arabians. It is distinguished from other allied species by its acuminated tricostate leaves, the ribs coming into contact at the base, but not uniting. The best cinnamon is procured from branches three years old. The outer bark is of a whitish-grey colour, and is

nearly tasteless, while the inner bark constitutes the cinnamon, which is imported in a quilled form into Britain. Oil of cinnamon is obtained from the bark by distillation, after it has been macerated in sea-water; and a fatty matter is procured from the fruit by boiling. This fat was used by the Portuguese in making candles.

Cinnamon was highly valued as a spice and perfume. It was one of the principal spices employed in the manufacture of precious ointment for the tabernacle (Exod. xxx. 22–25). Solomon speaks of it also as one of the frankincense plants: "Calamus and cinnamon, with all trees of frankincense" (Song iv. 14). Its use as a perfume is referred to in Prov. vii. 17: "I have perfumed my bed with myrrh, aloes [*Aquilaria Agallochum,*] and cinnamon." And the merchandise of it is noticed in the account of the destruction of the Apocalyptic Babylon: "Cinnamon, and odours, and ointments, and frankincense" (Rev. xviii. 13)

Besides the true cinnamon plant, we must also refer to another species known under the name of *Cassia.* It is mentioned in Scripture as *Kiddah.* It constituted one of the ingredients in the holy ointment already referred to (Exod. xxx. 24); and it is recorded by Ezekiel among the merchandise of Tyre (Ezek. xxvii. 19). The plant referred to in these passages appears to be the *Cinnamomum Cassia* of botanists, which is distinguished from the *Cinnamomum zeylanicum* by its oblong-lanceolate

triplicostate leaves, the three ribs uniting together for some extent at the base of the leaf. The bark of the tree is known as cassia-bark. It is inferior to cinnamon, being coarser and more pungent, with a certain amount of bitterness. The leaves when chewed have a true cinnamon flavour, while the leaves of *Cinnamomum zeylanicum* when similarly treated taste like cloves. Cassia-oil and cassia-buds appear to be produced by the same tree. It grows in India and China.

The word *ketzioth*, translated cassia, in Ps. xlv. 8, is by Royle conjectured to mean the *costus* of the ancients, the *koost* of the Arabs, and the *Aucklandia Costus* of botanists.

FIR-TREE.

(*Cupressus sempervirens, or Cypress.*)

"I am like a green fir-tree."—Hos. xiv. 8.

THE fir-tree is noticed in the Bible under the Hebrew names of *Berosh* and *Beroth*. Most commentators believe that the tree alluded to is the cypress, *Cupressus sempervirens* of botanists. It belongs to the class Monœcia, order Monadelphia, of the Linnean system, and to the natural order Coniferæ or the Cone-bearing family, section Cupressineæ. These coniferous trees are resinous in their nature, their leaves are very narrow and sharp-pointed (hence called needle-trees by the Germans), their staminate flowers are in deciduous catkins, and their pistillate flowers in cones, the scales of which cover one, two, or more naked seeds. The wood of the tree is marked with remarkable dotted discs, which are easily seen under the microscope. The tree has a tapering form not unlike that of the Lombardy poplar, and in southern latitudes it attains a height of fifty or sixty feet. Its fruit is a more or less rounded cone, flattened at the apex, and composed of peltate

scales, covering numerous winged seeds. Its timber is durable. The gates of Constantinople, which stood for more than a thousand years, were made of it. The tree is a native of Greece, Asia Minor, Syria, and Palestine. The Mohammedans plant it in their burying-grounds.

Allusion is frequently made in the Bible to the vigorous growth of the fir-tree. Thus Ezekiel, when describing the power of the Assyrian, selects the fir-tree on account of its noble growth, and says, "the fir-trees were not like his boughs" (xxxi. 8). For the same reason it is associated with the cedar of Lebanon. Sennacherib, the King of Assyria, is represented as saying, "With the multitude of my chariots I am come up to the height of the mountains, to the sides of Lebanon, and will cut down the tall cedar-trees thereof, and the choice fir-trees thereof" (2 Kings xix. 23; Isa. xxxvii. 24).

The wood was used for various purposes, such as in house-building, ship-building, the formation of musical instruments, &c. It was one of the kinds of timber sent by Hiram to Solomon for the construction of the temple (1 Kings v. 8, 10; ix. 11; 2 Chron. ii. 8). The floor of the house was covered with planks of fir, and the two doors at the entrance of the temple, and the ceiling, were made of the same kind of wood (1 Kings vi. 15, 34; 2 Chron. iii. 5). Rafters of *berosh* are also referred to (Song i. 17). David and all the house of Israel played on musical instruments made of *berosh* wood.

Fir-trees are mentioned in connection with the future renovated earth. Isaiah says, "I will set in the desert the fir-tree" (Isa. xli. 19); "Instead of the thorn shall come up the fir-tree" (Isa. lv. 13); "The glory of Lebanon shall come unto thee, the fir-tree, the pine-tree, and the box-tree together, to beautify the place of my sanctuary" (Isa. lx. 13).

The word *Tirzah*, translated cypress, in Isa. xliv. 14, is supposed by many to mean the evergreen oak, *Quercus Ilex*, the wood of which was constantly employed by the ancients in making images.

The *gopher-wood*, of which the ark was constructed (Gen. vi. 14), is supposed to be the produce of the cypress, or of some other tree belonging to the pine tribe.

Along with the cedars on Lebanon there is found a fir-tree called *Pinus Halepensis* by botanists, and it may be referred to in some passages in the Bible.

FIG-TREE.

(*Ficus Carica.*)

"Learn a parable of the fig-tree."—MATT. xxiv. 32.

THE Hebrew word *Teenah*, and the Greek word *Sycé* or *Sucé*, are translated Fig and Fig-tree in Scripture. The tree is called by botanists *Ficus Carica.* It belongs to the class Polygamia, order Dicœcia, of the Linnean system, and to the natural order Artocarpaceæ, or the Bread-fruit family, and the sub-order Moreæ, which includes also the mulberry. The tree is characterized by its fruit, which is formed by an enlarged succulent hollow receptacle, containing the flowers in its interior. Hence the flowers of the fig-tree are not visible until the receptacle is cut open. The tree is a native of the East, and has been transported into Europe. It is grown in the south of Europe, including Greece and Italy, and in northern and western Africa. A wild type is known in Italy by the name of Caprifico. Figs have been cultivated from the earliest times. The fig is the first tree mentioned by name in Scripture (Gen. iii. 7). The figs of Athens were cele-

brated for their flavour. Figs at the present day are brought to this country from Smyrna in small boxes called drums; the quantity imported in 1858 was nearly seventeen hundred tons.

The fig-tree was common in Palestine, which was described as being "a land of wheat, and barley, and vines, and fig-trees, and pomegranates" (Deut. viii. 8). The parties who went from the wilderness of Paran to search the land "brought of the pomegranates and of the figs" (Num. xiii. 23). The fig-tree is employed to indicate the peace and prosperity of a nation (1 Kings iv. 25; also Micah iv. 4). Sennacherib, king of Assyria, employs the same metaphor in order to induce the inhabitants of Jerusalem to surrender (2 Kings xviii. 31; Isa. xxxvi. 16). Figs constitute an important article of food in eastern countries, and are eaten both in a fresh and in a dried condition. In the latter state they are spoken of as being made into cakes, called *debelim*. Abigail brought two hundred cakes of figs to David and his men (1 Sam. xxv. 18); and the armies that came to David in Hebron brought cakes of figs (1 Chron. xii. 40). A piece of a cake of figs was given to the Egyptian who was found in a famishing state in the field (1 Sam. xxx. 12). Good and bad figs are used by Jeremiah as emblems of good and evil (Jer. xxiv.)

The failure, destruction, and falling of the figs are mentioned as indications of the judgments of the Lord

(Ps. cv. 33; Isa. xxxiv. 4; Jer. v. 17, viii. 13; Hosea ii. 12; Joel i. 7, 12; see also Rev. vi. 13). Figs were used as a laxative, and also as a poultice. Thus Isaiah ordered a lump of figs to be laid on the boil with which Hezekiah was afflicted, and he recovered (2 Kings xx. 7; Isa. xxxviii. 21).

Different crops of figs are produced during the year. Early figs appeared in spring (Jer. xxiv. 2). Isaiah, Hosea, and Nahum refer to the early or first ripe figs, or the hasty fruits before the summer (Isa. xxviii. 4; Hosea ix. 10; Nahum iii. 12). The early green fruit is alluded to in the Song of Sol. ii. 13. Besides the forward figs of spring, there were also summer and autumn figs. When Jesus was proceeding from Bethany to Jerusalem, "He hungered, and when he saw a fig-tree in the way, He came to it and found nothing thereon but leaves only" (Matt. xxi. 18, 19). The period was early, and according to Mark, "the time of figs was not yet" (Mark xi. 13); still, as the tree was in full leaf, it might have been expected that some early figs would have been found. Finding no appearance whatever of fruit, however, our Saviour said to the tree, "Let no fruit grow on thee henceforward for ever; and presently the fig-tree withered away."

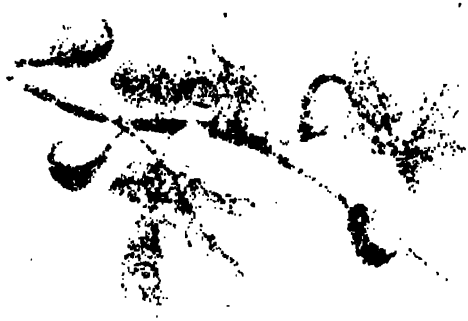
HYSSOP.

(*Capparis ægyptiaca, or Caper-plant.*)

"He spake of trees, from the cedar tree that is in Lebanon, even unto the hyssop that springeth out of the wall."—1 KINGS iv. 33.

THE Hebrew word *Esobh* and the Greek *Hyssopos* are translated hyssop in the Bible. There have been great differences of opinion regarding the nature of the plant thus mentioned by the sacred writers of the Old and New Testament. Some have thought that it was a minute moss or fern, or some other wall-plant; others, that it was the plant called hyssop at the present day, or one allied to it, such as rosemary, marjoram, or thyme. After a careful examination, Dr. Royle has come to the conclusion that the hyssop of the Bible is one of the caper plants (*Capparis spinosa* or *Capparis ægyptiaca* of botanists); that the name of the plant, *Azaf*, in Arabic corresponds with the Hebrew *Esobh;* and that the shrub is fitted for all the purposes mentioned in the Scriptures.

The caper-bush belongs to the class Polyandria and order Monogynia of the Linnean system, and to the natural order Capparidaceæ or the Caper family. The



[illegible] Hebrew word *Eseb* and the Greek *Hyssop* [illegible] hyssop in the Bible. There have been great differences of opinion regarding [illegible] which has occasioned by the sacred [illegible] and New Testament. Some have [illegible] mosses or ferns, or some other [illegible] was the plant called hyssop at [illegible] Christ, such as rosemary, [illegible] Others [illegible] question. Dr [illegible] conclusion that the hyssop of the [illegible] plants (*Origanum*) [illegible] or [illegible] botanists that the name of the [illegible] Hyssop [illegible]

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FIG-TREE.

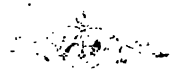
HYSSOP.

plants of this order have pungent, stimulant, and anti-scorbutic qualities. The caper-bush grows in Lower Egypt, in the deserts of Sinai, and in Palestine. The localities in which the plant delights are barren soils, rocky precipices, and the sides of walls.

Hyssop is mentioned in several passages of the Old Testament in connection with cleansing and purification. The first mention of it is in Exodus xii. 22, at the institution of the passover, where it is directed that the blood of the lamb shall be sprinkled by means of hyssop on the dwellings of the Israelites. In the cleansing of the leper and of the house affected with the plague of leprosy, hyssop was also employed in a similar way (Lev. xiv. 4–7, 49–52). It was also used in the burning of the heifer, from the ashes of which the water of separation was prepared, as well as in the sprinkling of the water (Num. xix. 6). It seems to be in allusion to this sprinkling that the Psalmist says, "Purge me with hyssop, and I shall be clean" (Ps. li. 7). Royle, however, thinks that David here refers to the detergent quality of the flower-buds of the plant, which constitute the capers of commerce, and are supposed to have cleansing properties.

Reference is made to hyssop in the New Testament also. Thus St. Paul alludes to the use of it in purification (Heb. ix. 19–21). The evangelist John, in the account which he gives of the crucifixion of our Lord,

says, "Now there was set a vessel full of vinegar; and they filled a sponge with vinegar, and put it upon hyssop, and put it to His mouth" (John xix. 29). Here we have vinegar mentioned along with hyssop, probably as being the material used in the preparation of capers. It is obvious, also, from this passage, that the hyssop must have been a plant capable of furnishing a rod of moderate length, so that the sponge might be raised to the Saviour's lips. Such a statement, then, seems to exclude all those translations which would make the hyssop a minute plant or a small herb. The caper-bush would suit the purpose, as a stick of three or four feet long could be obtained from it. In the parallel passages of the Gospels according to Matthew and Mark, it is said that the sponge was put on a reed (Matt. xxvii. 48; Mark xv. 36), and the word hyssop is not introduced. This may be explained either by supposing that the word *kalamos*, translated reed, was a *stick* of hyssop, or that part of a hyssop-bush was fastened upon the end of a reed or stick, and the sponge placed on it.



ASPEN OR TREMBLING POPLAR.

(Mulberry-Tree of Scripture.)

Page 37.

OAK-TREE.

(Quercus Ilex.)

Page 39

ASPEN OR TREMBLING POPLAR.

(THE MULBERRY-TREE OF SCRIPTURE).

(*Populus tremula.*)

"The sound of a going in the tops of the mulberry trees."—2 SAM. v. 24.

THE Hebrew word *Becaim* has been translated mulberry trees. It is the plural of the word *Baca*, which occurs in Psalm lxxxiv. 6. It is supposed by able commentators that the trees noticed under these names were poplars, several species of which occur in the Holy Land. Kitto says, "We know that the black poplar, the aspen, and the Lombardy poplar grew in Palestine. The aspen, whose long and flat leaf-stalks cause the leaves to tremble with every breath of wind, unites with the willow and oak in overshadowing the water-courses of Lower Lebanon, and with the oleander and acacia in adorning the ravines of Southern Palestine. The Lombardy poplar is described as growing with the walnut-trees and weeping-willow under the deep torrents of the Upper Lebanon." The Arabic word *Bak*, which means Poplar, is very similar to the Hebrew Baca.

The aspen (*Populus tremula* of botanists) is supposed

to be the tree indicated by the Hebrew words we have noticed. The quaking of its leaves has given origin to the name of trembling poplar, which is applied to it. The moving of the leaves seems to be referred to in the following passage:—"And the Philistines came up yet again, and spread themselves in the valley of Rephaim. And when David inquired of the Lord, he said, Thou shalt not go up; but fetch a compass behind them, and come upon them over against the mulberry trees [becaim]. And let it be, when thou hearest the sound of a going in the tops of the mulberry-trees, that then thou shalt bestir thyself" (2 Sam. v. 23, 24; 1 Chron. xiv. 14, 15).

The poplar gave the name to the valley of Baca, which is sometimes called the Valley of Weeping. Here the tree was associated with the willow and other plants which delight in a moist soil: "Who passing through the valley of Baca, make it a well; the rain also filleth the pools" (Psalm lxxxiv. 6). In this shady valley the traveller to Zion was refreshed by the wells and pools of water.

The aspen belongs to the class Dicœcia, order Octandria of the Linnean system, and to the natural order Salicaceæ, the Willow family. The plants of the order have their flowers in catkins, and their seeds covered with silky hairs. The trembling of the aspen leaf in the slightest breeze seems to depend on the flattening of the petiole or leaf-stalk in a vertical direction. The tree extends to northern countries, and is found in the alpine districts of Scotland.

OAK-TREE.

(*Quercus Ægilops.*)

"And he [the Amorite] was strong as the oaks."—AMOS ii. 9.

THE Hebrew word *Allon* has been translated oak. It is probable that under this name were included several species, such as *Quercus Ilex* or evergreen oak, *Quercus coccifera* or Kermes oak, and *Quercus Ægilops* or *Valonia*, the great prickly-cupped oak. The last mentioned is that which we have figured. It is a handsome tree, common in the Levant. It belongs to the class Monœcia, order Polyandria, of the Linnean system, and to the natural order Corylaceæ or Cupuliferæ, the Hazel and Oak family. The plants of this order have their flowers in catkins, and their fruit is a nut having a cup-like covering, as in the acorn, or a husk-like covering, as in the hazel nut. The cups of the *Quercus Ægilops* are used by dyers under the name of valonia. In 1858 valonia was imported into Britain to the extent of 20,000 tons.

Another Hebrew word, *Elah* or *Ailah*, has also been translated oak in the Bible, but it is more properly con-

sidered as meaning the Terebinth-tree. Our translators have also rendered other Hebrew words by the name oak. The word translated *plain*, for instance, in some passages, means an oak grove. Thus, in 1 Sam. x. 3, in place of "the plain of Tabor," the translation ought to be, a grove of oaks at Tabor. Also in Judges ix. 37, instead of "plain of Meonenim," we should read an oak or oak-grove of the magicians. Other texts in which "plain" occurs in place of "oak" are—Gen. xii. 6; xiii. 18; xiv. 13; xviii. 1; Deut. xi. 30; Judges iv. 11; ix. 6.

In some parts of Palestine, oaks must have occupied a conspicuous place in the landscape. We read of the oaks of Bashan as being famous for strength, beauty, and utility. When the children of Israel departed from the Lord, they appear to have performed idolatrous rites in oak groves. Thus we read in Hosea iv. 13 of the burning incense upon the hills and under oaks. Isaiah (xliv. 14) speaks of the people taking the oak to make a god. When the Lord threatens judgment upon the nations, he refers often in a special manner to the oaks, "The day of the Lord shall be upon all the oaks of Bashan" (Isa. ii. 12, 13); "Howl, O ye oaks of Bashan" (Zech. xi. 2). Porter, in his interesting travels, when speaking of the mountains of Bashan, says: "Bleak and rocky at the base, they soon assume bolder outlines and exhibit grander features. Ravines cut deeply into their sides; bare cliffs shoot out from tangled jungles of dwarf

ilex (oak), woven together with brambles and creeping plants; pointed cones of basalt, strewn here and there with cinders and ashes, tower up until a wreath of snow is wound round their heads; straggling trees of the great oaks of Bashan dot thinly the lower declivities, higher up little groves of them appear, and higher still, around the loftiest peaks, are dense forests."

Solemn covenants were made under an oak. Joshua, when he solemnly charged the people, and announced to them the law of God, put up a stone of witness under an oak (Josh. xxiv. 26). In old times persons were sometimes buried under the shade of an oak. Thus it is stated in regard to Deborah, Rebekah's nurse, that she was buried under an oak in Bethel, and the name of it was called Allon-bachuth, or the oak of weeping (Gen. xxxv. 8). The strength of the oak is referred to by Amos in speaking of the Amorite (Amos ii. 9). In the maritime city of Tyre, in its days of prosperity, the oak was used for making oars (Ezek. xxvii. 6).

MUSTARD-TREE.

(*Salvadora persica.*)

'A grain of mustard-seed, when it is grown, becometh a tree."—
MATT. xiii. 31, 32.

THE word *Sinapi* is met with in the Gospels according to Matthew, Mark, and Luke, and it has been translated *Mustard-tree.* Much difference of opinion has existed as to the plant here intended. It is thought that it cannot be the common mustard of this country, which is an herb of annual growth; whereas the evangelists speak of the plant as a tree having branches on which the fowls of the air lodged. Thus, in Matt. xiii. 31, 32, it is said, "The kingdom of heaven is like to a grain of mustard-seed, which a man took and sowed in his field; which indeed is the least of all seeds: but when it is grown it is the greatest among herbs, and becometh a tree, so that the birds of the air come and lodge in the branches thereof." Again, Mark describes it as a tree "shooting out great branches; so that the fowls of the air lodge under the shadow of it" (Mark iv. 31); and Luke says, "The kingdom of God is like a grain of mustard-seed, which a

man took and cast into his garden; and it grew, and waxed a great tree; and the birds of the air lodged in the branches of it" (Luke xiii. 19). Our Lord also alludes to the smallness of the seed in Matt. xvii. 20, and Luke xvii. 6. The mustard plant then was a branching tree with a small seed. Dr. Royle has examined this subject with his usual care and acuteness, and finds that the mustard plant of Palestine at the present day is a tree which answers in every respect to the description of the sacred writers. The tree grows near Jerusalem, and most abundantly on the banks of the Jordan, and round the sea of Tiberias. The seed is called *chardal* or *khardal*, which is the Arabic name for mustard. It is known to botanists as *Salvadora persica*, and belongs to the class Tetrandria, order Monogynia, of the Linnean system, and to the natural order Salvadoraceæ, which is considered as being nearly allied to the Olive family. It is found in Persia, Arabia, Palestine, and North Africa. An Indian species, *S. indica* or *Koenigii*, has similar qualities, and receives the name of *kharjal*.

The trunk of the Salvadora is sometimes twenty-five feet high, with a diameter of one foot. Its branches are very numerous, spreading, and with their extremities pendulous, like the weeping-willow. The flowers are minute. The berry is very small, much less than a grain of black pepper, smooth and red. Each fruit con-

tains one seed, which is pungent, and is used as mustard. The fruit has an aromatic smell, and tastes like garden-cress. The bark of the root is acrid, and is used in India for causing blisters.

Some, however, still think that the black mustard-plant (*Sinapis nigra*), is referred to in Scripture, inasmuch as *Salvadora persica* is a subtropical plant found in the valley of Engedi, and not a common plant in Palestine. The common black-mustard-plant has been seen in the Holy Land as high as the horse and his rider, and birds would naturally rest or settle upon it. The parable illustrates the increase of Christ's kingdom, which from small beginnings is destined finally to extend over the whole earth.

Professor Hackett tells us that when crossing the plain of Akka, in Palestine, he saw before him a little grove of trees. On coming nearer they proved to be a grove of mustard plants. Some of the trees were full nine feet high, with a trunk two or three inches in circumference, throwing out branches on every side. He wondered whether they were strong enough for the birds to "lodge in the branches thereof." Just then a bird stopped in its flight through the air, alighted down on one of the limbs, which hardly moved beneath the weight, and began to warble forth a strain of sweetest music. The Professor was delighted with the incident. His "doubts were charmed away," the "least of all seeds" has actually grown into a substantial tree.

MUSTARD-TREE.

MYRTLE-TREE.

MYRTLE-TREE.

(*Myrtus communis.*)

"Instead of the brier shall come up the myrtle-tree."—Isa. lv. 13.

THE Hebrew word *Hadas*, translated Myrtle, occurs in a few passages in the Old Testament. Royle says that the berries of the myrtle are at the present day sold in bazaars in India under the name of *hadas*. It is the *Myrtus communis* of botanists, and belong to the class Icosandria, order Monogynia, of the Linnean system, and to the natural order Myrtaceæ, or the Myrtle family. The pomegranate belongs to the same order, but is well distinguished from the other plants by the character of its fruit. The common myrtle is the most northern species of the order. It seems to have been in high repute in eastern countries on account of its beautiful snow-white flowers, its dark green foliage, and its pleasant odour. Its buds and berries have been used as spices, and a fragrant distilled water is prepared from its flowers. The bark and root are used for tanning Russian and Turkish leather, to which they communicate a peculiar odour. The leaves are also used to dress

skins. It grew abuntantly in Palestine and Syria, and it is noticed by Nehemiah as one of the trees which supplied branches for the construction of booths: "Go forth unto the mount, and fetch olive branches, and pine branches, and myrtle branches, and palm branches, and branches of thick trees to make booths, as it is written" (Neh. viii. 15). Zechariah in his vision speaks of the angel of the Lord standing among the myrtle-trees, implying that they were well known and common in the country (Zech. i. 8, 10, 11). The myrtle is not a native of Britain, although it is generally cultivated in green-houses.

In this country it rarely becomes a tree, and does not blossom freely. In the north of Europe it is frequent. At the present day it occurs on the hills around Jerusalem, and in the valley of Lebanon, and it sometimes forms extensive thickets. Harris mentions myrtles growing in the valleys to the height of ten feet, and emitting an exquisite perfume. The tree sometimes attains a height of twenty feet. Horace speaks of myrtle crowns, and mentions the myrtle as a garden plant; and Virgil states that the odour of Corydon's garden arose from the laurel and myrtle that were planted together (Ecl. ii. 54). Milton, describing the bower of Paradise, says—

> .... "The roof
> Of thickest covert was inwoven shade,
> Laurel and myrtle, and what higher grow
> Of firm and fragrant leaf."

The tree is used by the prophets to indicate a change on the face of the earth, when the knowledge of the Lord shall cover the earth as the waters cover the sea. Thus Isaiah, when speaking of that blessed epoch, says, "Instead of the thorn shall come up the fir-tree, and instead of the brier shall come up the myrtle-tree; and it shall be to the Lord for a name, for an everlasting sign that shall not be cut off" (Isa. lv. 13). Again, the Lord says by the prophet, "I will plant in the wilderness the cedar, the shittah-tree, and the myrtle, and the oil-tree" (Isa. xli. 19).

It has been stated that Hadasseh, the original name of Esther, is derived from the word Hadas, meaning myrtle. It has also been conjectured that Esther is formed from the word *as*, an Arabic name for myrtle, and *tur* meaning fresh. The Jews employed the myrtle as an emblem of justice.

OLIVE-TREE.

(*Olea europæa.*)

"His beauty shall be as the olive-tree."—Hos. xiv. 6.

THE olive tree is frequently mentioned both in the Old and in the New Testament. It is one of the earliest of the plants noticed in the Bible. In Genesis viii. 11, the dove is described as bringing the olive-branch to Noah. Being thus associated with the assuaging of the waters of the flood, the olive-branch is used as an emblem of peace. The name of the tree in Hebrew is *Zait* or *Sait*, or in Greek *Elaia*. It is the *Olea europæa* of botanists, and belongs to the class Diandria, order Monogynia, of the Linnean system, and the natural order Oleaceæ, or the Olive family. The plants of this order have four divisions of their corolla, usually two stamens, a two-celled and two-seeded ovary, and a fleshy or dry fruit, which is often by abortion one-seeded. The olive-tree has a drupaceous fruit, which was gathered for the purpose of furnishing oil, and seems to have been shaken off by beating the branches; hence in Deut. xxiv. 20, it is said, "When thou beatest thine

olive-tree, thou shalt not go over the boughs again; it shall be for the stranger, for the fatherless, and for the widow." Isaiah also alludes to the shaking of the olive-tree and the fruit left (Isa. xvii. 6). The outer, fleshy part of the fruit yields the oil under pressure. The finest oil at the present day is imported from Florence and Provence. In 1858 upwards of 25,000 tuns of olive oil were imported into Britain.

The olive-tree is common in the south of Europe, and it abounded in the Holy Land, which was hence called a land of olive-trees, of olive-yards, and of oil-olive (Exod. xxiii. 11; Deut. vi. 11; viii. 8; xxviii. 40; Josh. xxiv. 13). Solomon gave to the servants of Hiram twenty thousand baths of oil (2 Chron. ii. 10). The Mount of Olives, so called from the abundance of these trees, is often referred to as the spot to which our Saviour retired alone or with his disciples (Matt. xxi. 1; xxiv. 3; xxvi. 30; Mark xiii. 3; xiv. 26; Luke xix. 29; xxi. 37; xxii. 39; John viii. 1); and it was from the Mount Olivet that the disciples witnessed the ascension of their Master (Acts i. 12). In the prophecies regarding the glorious latter days, allusion is also made to the Mount of Olives (Zech. xiv. 4). Some very old olive-trees still exist on the Mount. The tree is of slow growth, and seldom attains a greater height than twenty or thirty feet.

There are two varieties of olive-trees, distinguished as

the long-leaved, which is cultivated in the south of France and Italy, and the broad-leaved in Spain. The wild olive, called by the Greeks Agri-elaia, was a low spiny tree, the branches of which were grafted on the cultivated olive. Hence the allusion by St. Paul in Romans xi. 17, 24. The evergreen nature of the tree causes the Psalmist to exclaim, "I am like a green olive-tree in the house of God" (Ps. lii. 8); and Jeremiah says, "The Lord called thy name, A green olive-tree" (Jer. xi. 16). The timber of the tree was used for furniture, and for ornamental carvings. In the temple it was used in the carvings, in forming the posts of the doors, and in the construction of the cherubim (1 Kings vi. 23, 31, 32). Its branches were employed at the Feast of Tabernacles (Neh. viii. 15). The bark of the tree has tonic properties. The oil expressed from the fruit was used in the temple and for anointing (Exod. xxv. 6; xxx. 23–25; xxxv. 14; xxxix. 37; Lev. viii. 12). The treading of the olive, and the expressing of its oil and the collecting of it in vats, are alluded to by Micah and Joel (Micah vi. 15; Joel ii. 24; iii. 13). The fatness of the olive-tree is noticed in Judges ix. 9, and in Romans xi. 17. The value of the trees required that there should be overseers to attend to them (1 Chron. xxvii. 28).

was called the city of palm-trees (Deut. xxxiv. 3; Judges i. 16; iii. 13; 2 Chron. xxviii. 15). The name Tamar is applied to a city in Palestine, probably from the palm-trees near it (Ezek. xlvii. 19; xlviii. 28). Some say that Tamor was Tadmor in the wilderness (2 Chron. viii. 4). Hazezon-Tamar and Baal-Tamar are also mentioned. The tree extends along the course of the Euphrates and Tigris, across to Palmyra and to the Syrian coast of the Mediterranean. It grows also in the northern parts of Africa. When growing in the desert, it indicates the presence of water. The Israelites in their journey "came to Elim, where were twelve wells of water, and threescore and ten palm-trees, and they encamped by the waters" (Exod. xv. 27). Stanley says that the palm breaks the uniformity of the Syrian landscape by the rarity of its occurrence: "Two or three in the gardens of Jerusalem, some few at Nablûs, one or two in the plain of Esdraelon, comprise nearly all the instances of the palm in central Palestine."

The stem of the date-palm exhibits what is called the endogenous mode of growth, the hardest part being on the outside. The leaves are pinnate, and are sometimes called branches in Scripture (Lev. xxiii. 40; Neh. viii. 15). They were used at the Feast of Tabernacles for covering the booths. They are also used as emblems of victory or triumph. Thus palm-leaves were employed by the multitude when they went forth to meet Jesus coming to

Jerusalem (John xii. 13). In the heavenly Jerusalem, the great multitude who stood before the throne and before the Lamb are represented by the apostle John as "clothed with white robes, and palms in their hands" (Rev. vii. 9). The flowers are produced on a branching spadix covered by a sheath. The fruit hangs in clusters. This is supposed to be alluded to in Song of Solomon vii. 7, "This thy stature is like a palm-tree, and thy breasts to clusters of dates," (not *grapes*, as added by our translators). Dates constitute an important article of food. It is said that nineteen-twentieths of the population of Fezzan, in Africa, live on dates during nine months of the year, and that many of the animals also feed on them. It is also stated that in Fezzan every door and every post is made of date-palm wood, and the poorer classes live in huts (booths) entirely made of date-palm leaves. Dates are imported into Britain from Barbary and Egypt, and are usually of the variety called Tafilat. In 1858, 26,000 cwts. were imported.

Figures of palm-trees were introduced by Solomon into the carvings of the temple (1 Kings vi. 29, 32, 35; vii. 36; 2 Chron. iii. 5); and they are also referred to by Ezekiel in his description of the second temple (Ezek. xl. 16, 22, 26, 31, 37; xli. 18–20, 25). The palm-tree, from its erect and noble growth, and its heavenward direction, is used in Psalm xcii. 12 as an illustration of the righteous.

POMEGRANATE-TREE.

(*Punica Granatum.*)

"Thy plants are an orchard of pomegranates, with pleasant fruits."—SONG iv. 13.

THE pomegranate-tree and its fruit are noticed in Scripture under the Hebrew name of *Rimmon.* The plant is the *Rhoa* of Dioscordus and the *Sidé* of Homer. It is a native of Asia, and, according to Royle, may be traced from Syria through Persia and the mountains of Northern India. It was common in Palestine. Thus Moses, speaking of the promised land, calls it "a land of wheat and barley, and vines, and fig-trees, and pomegranates" (Deut. viii. 8); and the spies who searched the land "brought of the pomegranates and of the figs" (Num. xiii. 23). Several towns and villages in Palestine bore the name of Rimmon or Pomegranate (Josh. xv. 32; 1 Chron. iv. 32; vi. 77; Zech. xiv. 10). Saul tarried under a pomegranate tree (1 Sam. xiv. 2); and the prophets Joel and Haggai refer to the pomegranate (Joel i. 12; Haggai ii. 19). The tree must have grown in Egypt during the time of the Israelites' sojourn there, for when in the wilderness

of Zin, they lamented the loss of the pomegranates (Num. xx. 5).

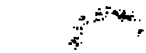
The tree is the *Punica Granatum* of botanists, the generic name indicating an African origin. The English name pomegranate is derived from the words *pomum granatum*, or grained apple of the Romans. The tree belongs to the class Icosandria, order Monogynia of the Linnean system, and to the natural order Myrtaceæ or the Myrtle family. It has a dark green foliage resembling that of the olive and myrtle; its flowers are of a beautiful crimson colour; and its fruit is red-coloured, as large as an orange, and contains a juicy pulp, which is particularly refreshing in warm countries. The calyx forms part of the fruit. Delicious seedless pomegranates are grown near Cabul.

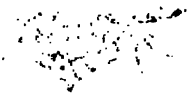
The beauty of the flower and fruit, and the use of the latter as an article of food, caused the plant to be cultivated in gardens (Song iv. 13; vi. 11; vii. 12). The delicate colour of the pulp of fruit is referred to in the following passage:—"Thy temples [or rather thy cheeks] are like a piece [section] of a pomegranate within thy locks" (Song iv. 3; vi. 7). The pulp of the fruit is eaten alone or with sugar, and the juice is expressed to furnish a refreshing drink, or to form wine. The wine of the pomegranate is mentioned in Song viii. 2.

The pomegranate was selected as a pattern of various ornamental carvings and embroiderings in ancient times.

The fruit and the flower furnished beautiful models for the purpose. The chapiters or capitals of the pillars in the temple were covered on the top with carved pomegranates (1 Kings vii. 18, 20, 42; 2 Kings xxv. 17; 2 Chron. iii. 16, and iv. 13; Jer. lii. 22). Embroidered pomegranates, with golden bells between them, were put on the bottom of the high priest's blue robe and ephod (Exod. xxviii. 33, 34; xxxix. 24–26).

Various parts of the pomegranate-tree have been used medicinally, especially for the cure of tape-worm. The bark of the root, the flowers, and the rind of the fruit, have been used for this purpose. The latter was employed for tanning and preparing the finer kinds of leather in early times. The rind is the principal material used at the present day in the manufacture of morocco leather.





POMEGRANATE-TREE.

Page 34

SHITTAH-TREE.

Page 37

SHITTAH-TREE.

(*Acacia Seyal.*)

"I will plant in the wilderness the cedar, the shittah-tree, and the myrtle, and the oil-tree."—ISA. xli. 19.

THE *Shittah-tree* of the Bible is the plant which yielded *shittim-wood.* This wood is mentioned among the offerings of the children of Israel (Exod. xxv. 5; xxxv. 7, 24). It was used in making the various parts of the tabernacle in the wilderness,—such as the ark and its staves (Exod. xxv. 10, 13; xxxvii. 1, 4; Deut. x. 3); the table for the shew-bread and its staves (Exod. xxv. 23, 28; xxxvii. 10, 15); the boards for the tabernacle and their bars (Exod. xxvi. 15, 26; xxxvi. 20, 31); the pillars for the veil and for the hanging of the door (Exod. xxvi. 32, 37; xxxvi. 36); the altar of burnt-offering and the altar for incense and their staves (Exod. xxxvii. 25, 28; xxxviii. 1, 6).

Considerable differences of opinion have existed relative to the tree which is referred to in these passages of Scripture. It grew apparently in abundance in the desert, so as to be easily procured by the Israelites. Dr. Shaw, in speaking of Arabia Petræa, says, "The

Acacia tree, being by much the largest and most common tree in these deserts, we have some reason to conjecture that the shittim-wood was the wood of the acacia, especially as its flowers are of an excellent smell; for the Shittah is, in Isa. xli. 19, joined with the myrtle and fragrant shrubs." Kitto thinks that the tree is the *Acacia Seyal* of botanists. This tree belongs to the class Polygamia, order Monœcia, of the Linnean system, and to the natural order Leguminosæ, and sub-order Mimoseæ.

The plants of this sub-order of Leguminosæ produce a legume or pod, and their flowers are regular, their petals being valvate in æstivation. They yield gummy and astringent matters. Gum arabic is furnished by this species of acacia, as well as by others. The tree is a native of Egypt and of the deserts of Arabia, and it would also appear to have grown near Jerusalem, for Joel, in speaking of the glory of the latter days, says, "And it shall come to pass in that day that the mountains shall drop down new wine, and the hills shall flow with milk, and all the rivers of Judah shall flow with waters, and a fountain shall come forth of the house of the Lord, and shall water the valley of Shittim," probably so called from the shittah or acacia trees growing in it (Joel iii. 18). Shittim is also noticed by Micah (vi. 5); and in the journeyings of the children of Israel a place named Abel-Shittim is mentioned in the plains of Moab (Num. xxxiii. 49).

The acacia-tree is thorny, and bears pinnate leaves. Its flowers grow in round yellow clusters, and the long thread-like projecting stamens give a peculiar character to the inflorescence. The poet speaks of the acacia as waving "its yellow hair." Its wood is hard and durable, and is susceptible of a fine polish.

SYCAMINE-TREE.

(*Morus nigra, or Black Mulberry.*)

"If ye had faith . . . . . ye might say to this sycamine-tree, Be thou plucked up by the root."—LUKE xvii. 6.

THE Greek word *Sycaminos*, translated "Sycamine-tree," occurs in one passage in the New Testament, namely, in Luke xvii. 6: "And the Lord said, If ye had faith as a grain of mustard seed, ye might say unto this sycamine-tree, Be thou plucked up by the root, and be thou planted in the sea; and it should obey you. The tree must not be confounded with the sycamore. It is obvious from Dioscorides, Galen, and other Greek authors, that by sycamine the mulberry-tree was meant. Celsus states this also very distinctly. Sibthorpe, who examined carefully the plants of Greece, and published the Flora Græca, says, that in that country the white mulberry-tree is, at the present day, called *Mourea*, and the black mulberry-tree, *Sycamenia*. Judging then, from the use of the term at the present day in Greece, it is believed that the *Morus nigra*, or black mulberry, is the species referred to.

Both the white and the black mulberry are common

[illegible] translation [illegible]
[illegible] passage [illegible]
[illegible] namely, in Luke [illegible]
[illegible] grain of mustard see
[illegible] sycamine-tree, [illegible]
[illegible] compared [illegible]
[illegible] be confounded with the
[illegible] Dioscorides, [illegible]
[illegible] sycamine the mulberry-tree
[illegible] also very [illegible]
[illegible] fully the parable of Christ
[illegible] says, that in the country
[illegible] the present day, called
[illegible] tree *Syamonia* [illegible]
[illegible] the present day [illegible]
[illegible] *Morus nigra*, or black
[illegible]
[illegible] liberty did [illegible]

SYCAMINE-TREE.

(*Morus nigra, or Black Mulberry.*)

Page 60

SYCOMORE-TREE.

(*Sycomorus antiquorum.*)

Page 63

in Palestine. The plants are much cultivated at the present day, on account of the leaves supplying food for silkworms. The mulberry belongs to the class Monœcia, order Tetrandria of the Linnean system, and to the natural order Artocarpaceæ, or the Bread-fruit family, and sub-order Moreæ, or Mulberry section. The leaves of the black mulberry are large, the flowers are in clusters, and the fruit is the product of numerous flowers, and thus, although it has an appearance like a bramble berry, it is totally different in structure.

Our Lord, in the passage from Luke, refers evidently to some tree which was well known to all his hearers, and probably frequently met with. The mulberry would be a fit tree for such an illustration.

The black or purple, and the white mulberry, are natives of Persia and the adjacent countries. The former produce the best fruit. The latter is the handsomer tree, but it is pruned and lopped for the purpose of furnishing a larger quantity of leaves for the silkworms which are bred in large quantities in Syria. Lady Callcott says, that "in the neighbourhood of Mount Lebanon, the land-tax of the peasants is assessed according to the number of mule-loads of mulberry leaves their little farms produce; so that the cultivation of the tree is directed to favour the growth of the leaf, at the expense of the fruit. . . . . In the southern part of the Holy Land, a palm-tree is usually planted in the court; while, towards the

north, it is replaced by the purple mulberry: the pleasant juice of whose fruit, mingled with water, in which the sweet-scented violet has been infused, forms one of the most grateful kinds of sherbet" (Scripture Herbal, 283, 284).

SYCOMORE-TREE.

(*Sycomorus antiquorum.*)

"I was an herdman, and a gatherer of sycomore fruit."—AMOS vii. 14.

THE Sycomore or Sycamore-tree of the Bible is quite distinct from that usually called sycamore at the present day in Britain. The latter is a species of maple, and is the *Acer Pseudo-platanus* of botanists, often called in Scotland plane-tree. The specific name indicates that the plant has some resemblance to the true plane (*Platanus*). This resemblance is seen in the leaves only, for in all other respects the trees are totally different. The sycomore of Scripture, however, is a kind of fig-tree, producing fruit similar in structure to the common fig, and having leaves like the mulberry. Hence the name Sycomore, which is derived from *sycon*, a fig, and *moron*, a mulberry. It is the *Ficus Sycomorus* or the *Sycomorus antiquorum* of botanists. In Hebrew the sycomore-trees are called *Shikmoth* and *Shikmim*. These are two plural words which occur in several places in the Old Testament. In the New Testament, the plant is mentioned under the Greek name

of *Sycomoros*. The tree belongs to the class Polygamia and order Dicœcia of the Linnean system, and to the natural order Artocarpaceæ or the Bread-fruit family, which by some is considered a suborder of the Urticaceæ or the Nettle family. It is separated from the latter family by its milky juice and the nature of its fruit, which is formed by numerous flowers on an elongated or hollow receptacle. The juice usually contains caoutchouc, and the fruit is generally edible.

The sycomore-fig was common in the plains of Egypt, and in the valleys of Palestine. Hence it has been sometimes called Pharaoh's fig, and it is said that Solomon made cedar trees "to be as the sycomore trees that are in the vale for abundance" (1 Kings x. 27; 2 Chron. i. 15; ix. 27). It is still cultivated near Cairo for its shade. It was not valued much either for its timber or for its fruit. Isaiah represents Ephraim and the inhabitants of Samaria as saying in the pride and stoutness of their heart, "The sycomores are cut down, but we will change them into cedars" (Isa. ix. 10); or, in other words, in place of houses built with the common sycomore fig-tree, we will build palaces of cedar. The wood of the sycomore is coarse-grained. In Egypt, where there were few native trees of value, the timber was used to form mummy cases. On account of the dry climate of that country, and the means used for the preservation of the timber, the wood of these cases is very durable.

The fruit of the sycomore grows in clusters on the trunk and main branches. It is edible, and is hence mentioned along with the olive and vine as one of the products of Canaan,—parties being appointed to take care of the trees (1 Chron. xxvii. 28; Ps. lxxviii. 47). It has a sweetish taste, and is still used as food. It is said to furnish a considerable portion of the food of the field labourers in Rhodes, Cyprus, and Egypt. In order that the fruit might ripen well and be palatable, it was necessary to make incisions into it or to scrape off a part at the end of it; and this practice is supposed to be alluded to by Amos, when he says, "I was an herdman, and a gatherer of" (*literally*, one who scraped or cut) "the sycomore fruit" (vii. 14). This mode of fig-ripening is noticed by Pliny. The tree was lofty and shady, and hence probably was planted along the road-sides. The stem sometimes attains fifty feet in circumference. Into a sycomore-tree Zaccheus climbed to see Jesus, on that memorable occasion when salvation came to him and to his house (Luke xix. 4).

TEIL-TREE, OR TEREBINTH-TREE.

(*Pistacia Terebinthus.*)

"As a Teil-tree [Terebinth-tree], or as an Oak, whose substance is in them."
—ISAIAH vi. 13.

THE feminine Hebrew word *Elah* or *Ailah*, denoting a strong hardy tree, occurs in several passages of the Bible, and has been variously translated. It is rendered in different versions terebinth, teil-tree, elm, oak, and plain. The word also occurs in the masculine form as *El* or *Ail*. It is now generally assumed that the plant indicated is the Terebinth-tree, the *Buthma* of the Syriac or Chaldee, the *Butm* or *Botom* of the Arabs, and the *Pistacia Terebinthus* or Turpentine-tree of botanists. It belongs to the class Dicœcia and order Pentandria of the Linnean system, and to the natural order Anacardiaceæ or Terebinthaceæ, the Cashew family, the plants belonging to which abound in a resinous or milky acrid juice.

The tree is the source of the Chian turpentine, which is procured by incisions in the trunk, and is collected chiefly in the island of Scio; a single tree yields about ten ounces. It is common in Palestine. Dr. Robinson

ten

TEIL-TREE OR TEREBINTH-TREE.

Page 66.

HUSK-TREE.
(Husks in Scripture.)

Page 69.

states that the tree is found also in Asia Minor (many of them near Smyrna), Greece, Italy, the south of France, Spain, and in the north of Africa; and that it sometimes attains the height of thirty or thirty-five feet. He noticed a very large specimen between Gaza and Jerusalem. The tree appears to be long-lived, and it was consequently frequently employed to designate places where important events occurred.

The valley of Elah or the Terebinth valley is mentioned in 1 Samuel xvii. 2, 19, xxi. 9. It was by this valley that Israel encamped, and it was in this valley that David slew Goliath. In Genesis xiv. 6, El-Paran is noticed. This is rendered by the Septuagint the Terebinth of Paran; by some commentators it is called the oak of Paran, and by others the plain of Paran, which is given in our Bibles as a marginal reading. In other places the word is also translated plain. This variety of translation has given rise to much confusion.

It would appear also that the name has been confounded with *Allon* and the feminine *Allah*, which mean oak. The difference between the words is well seen in some passages where both occur. Thus in Isaiah vi. 13 it is said, "As a teil-tree [Elah or Terebinth-tree] and an oak" (Allon). So also in Hosea iv. 13, "They sacrifice upon the tops of the mountains, and burn incense upon the hills, under oaks [Allon], poplars [Libneh or Styrax], and elms [Elah]." The term Oak is used instead of

Terebinth, in many other passages, such as the following:—The angel appeared to Gideon under a Terebinth at Ophrah (Judges vi. 11, 19); idols were worshipped in groves of Terebinth (Isa. i. 29; Ezek. vi. 13); idolaters are compared to a Terebinth, whose leaf fadeth (Isa. i. 30). (See also 1 Kings xiii. 14; 1 Chron. x. 12). In figuring the restoration of the mourners in Zion, Isaiah says, "that they might be called trees [Terebinths] of righteousness, the planting of the Lord, that he might be glorified" (Isa. lxi. 3).

HUSK-TREE.

HUSKS OF SCRIPTURE.

(*Ceratonia Siliqua.*)

"The husks that the swine did eat."—LUKE xv. 16.

THE Greek word *Keratia*, or *Ceratia*, occurs in Luke xv. 16, and has been translated *Husks*. The prodigal son, it is said, "would fain have filled his belly with the husks that the swine did eat." In Arabic, the word is rendered *Charnub*, or *Charub*, which seems to refer to the pods or legumes of the Carob-tree, *Caroba* of the Italians, *Algaroba* of the Spaniards and Moors, *Ceratonia Siliqua* of botanists. The tree belongs to the class Pentandria and order Monogynia of the Linnean system, and to the natural order Leguminosæ or the legume-bearing family, and section *Cæsalpiniæ*, in which the petals have a pea-like arrangement, but the upper one is interior.

The tree is common in the south of Europe as well as in Syria and Egypt. Its pods or husks received the name of *Keratia*, from their fancied resemblance to a slightly curved horn, or *keras*. These husks were

formerly used in large quantity to feed cattle and swine, and they are often mentioned in this point of view by old authors. Horace, in his Epistles, alludes to living upon husks as upon vile food—

"Vivit siliquis et pane secundo."—EPIST. II. i. 123.

Persius and Juvenal also allude to them. Pliny describes them as the food of pigs (lib. xv., cap. 23, 24). At the present day, they are employed in Spain and other countries to feed horses, asses, and mules; and they were frequently given to horses by the British soldiers during the Peninsular war. The pods are imported into Britain in small quantity, as food for horses and cattle. The locust beans, as they are called by farmers, are mixed with oil-cake and a little meal. They do not require to be crushed, for, being very palatable, the animals masticate them well before swallowing them. Camels are also fed on them. Hence they are called by the Turks *Dewch Etmeghi*, or, the bread of the camel. A tree will sometimes produce 800 to 900 pounds of pods.

The pod is 6 to 8 inches in length, and about an inch in breadth. It is flattened on the sides, and is about a quarter of an inch in thickness. The seeds are of a reddish brown colour, and are immersed in a sweetish pulp. In times of scarcity, the pod has been used by man as food. Some have called the tree locust-tree, and St. John's bread-tree, from a mistaken notion that its pods

were the locusts referred to in Matt. iii. 4, and Mark i. 6, as forming part of the food of the Baptist. The German name for the fruit, for the same reason, is *Johannisbrod.*

Rawolf, in his account of a journey from Bethlehem to Jerusalem, says, "Along the roads were a good many of the trees which are called by the inhabitants *Chernubi* (the Arabic, *Charnub*), and the fruit of which we call St. John's bread; it was brought to us in great quantities." In the case of the prodigal son, the feeding on husks pointed out the low and miserable condition to which he was reduced when he wandered from his father's house. He would fain have been content with the most miserable fare, and was in a very degraded situation, although, in his madness and folly, he knew it not. His condition represents that of the sinner who has wandered from God, and who is content with the unsatisfying husks of this world's enjoyments.

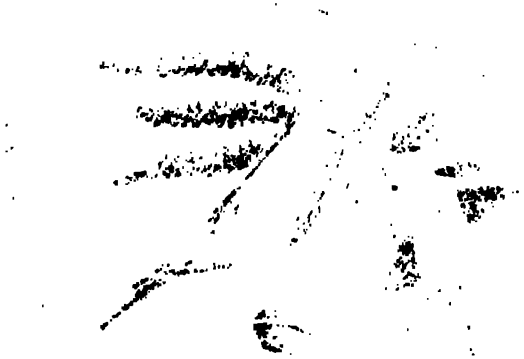
PLANE-TREE.

CHESTNUT-TREE OF THE BIBLE.

(*Platanus orientalis.*)

'The chestnut-trees [plane-trees] were not like his branches."—EZEK. xxxi. 8.

IN two passages of the Old Testament we meet with the Hebrew word *Armon*, and in both of them it has been translated *Chestnut*. Thus, in Genesis xxx. 37, it is said, "And Jacob took him rods of green poplar, and of the hazel and chestnut tree;" and again, in Ezekiel xxxi. 8, "The cedars in the garden of God could not hide him: the fir-trees were not like his boughs, and the chestnut-trees were not like his branches." The best commentators consider the tree to be the eastern Plane-tree, the *Platanus orientalis* of botanists. It is a large tree, with spreading branches. Ovid speaks of "platano conspectior alta;" and Martial alludes to the tree thus: "Ramis sidera celsa petit." De la Roque, in his "Travels in Syria and Mount Lebanon," says, "We dined in the midst of this little forest. It is composed of twenty cedars, of such enormous size that they far exceeded the more beautiful



PLANE-TREE.

Page 72

WALNUT-TREE.

Page 75

Plane-trees, sycomores, and other large trees, which we had been in the habit of seeing during our journey." Royle says, "It may be remarked, that this tree is in Genesis associated with such trees as the willow and poplar, which, like it, grow on low grounds, where the soil is rich and humid. Russel names the plane, willow, and poplar, as trees which grow in the same situations near Aleppo. This congruity would be lost if the chestnut were understood, as that tree prefers dry and hilly situations."

The Plane-tree belongs to the class Monœcia and order Polyandria of the Linnean system, and to the natural order Platanaceæ, or the Plane-tree family, which are catkin bearing plants, with the flowers in clusters of rounded balls, pendulous on a common stalk. The leaves of the Oriental plane are palmate, resembling those of our common sycamore, which is a species of maple. The resemblance in the form of the leaves has caused the latter to be denominated in Scotland the Plane-tree, and to be named botanically false-plane (*Acer pseudo-platanus*). The wood of the true plane is hard and fine-grained, and when old resembles walnut wood in its dark veining. The timber was used for making vessels for the vintage, and for other purposes.

The tree is a native of the western parts of Asia, and it extends as far as Cashmere. It was held sacred in the East, and was valued for its shade by the Greeks

and Romans. Themisteus speaks of disputations under the lofty platanus. Belon says that the plane-trees of Mount Athos may be compared in height to the cedars of Lebanon, and to the lofty pines of Mount Olympus and Aman. He also notices the occurrence of fine plane-trees at the entrance to Antioch; and De la Roque refers to the forest of plane-trees and cypresses which border the river Orontes, in the plains of Antioch. Xerxes is said to have paid homage to a large plane-tree in Lydia.

WALNUT-TREE.

(*Juglans regia.*)

"The garden of nuts" [walnuts].—SONG OF SOLOMON vi. 11.

THE Hebrew word *Egoz* has been rendered, in our version of the Bible, *Nuts*. It occurs in the Song of Solomon, (vi. 11): "I went down into the garden of nuts to see the fruits of the valley." It is the Arabic *Gjaus* or *Ghaus*, and the Syriac *Gusa*, which were names given to the walnut. Hence the plant is believed to be the Walnut-tree, the *Juglans regia* of botanists. The fruit is the *caruon basilicon*, or royal nut of the Greeks, the *nux* of the Romans, and the *noix* of the French. The Latin term Juglans is a corruption of Jovis-glans, or Jupiter's nut. It appears to have been one of the many kinds of fruits which Solomon introduced into his gardens and orchards (Eccles. ii. 5).

The walnut-tree belongs to the class Monœcia and order Polyandria of the Linnean system, and to the natural order Juglandaceæ or the Walnut family, in which the flowers are in catkins, and the fruit is a drupe, usually with a two-valved endocarp or shell, and a pecu-

liarly lobed and divided seed. The latter character is well seen in the common walnut. The tree is wide-spreading, and affords a grateful shade. It flowers in April, and has ripe fruit in September and October. Its leaves are fragrant when bruised. The outer covering of the fruit is astringent, and dyes the fingers black during the process of peeling. The thin outer covering of the seed immediately under the shell is bitter, and in its fresh state requires to be removed before the kernel is eaten. The seed yields a large quantity of drying oil. The timber is valued for carpenter work.

The tree extends from Greece and Asia Minor through Persia to the Himalaya. In Cashmere walnuts are cultivated for their oil. Josephus says that the walnut-trees were very productive around the Lake of Gennesareth. Schulz also mentions large walnut-trees between Ptolemais and Nazareth. Travellers record the occurrence of the tree in Syria; Thevenot found it near Mount Sinai, and Belon alludes to it as abundant near Lebanon.

Another Hebrew word, *Botnim*, has been also rendered *nuts* in our version of the Bible. It occurs in Genesis xliii. 11, where Israel says to his sons, "Take of the best fruits in the land in your vessels, and carry down the man a present, a little balm, and a little honey, spices, and myrrh, nuts, and almonds." Various plants have been considered as yielding the nuts referred to in

this passage. Considering that the fruit was the common produce of Syria, and that the allied Arabic word, *Batam* or *Botin*, is applied to a species of terebinth, it is now supposed that Bochart was correct in saying that the nuts were the Pistacia or Pistachio nuts of commerce, the produce of the *Pistacia vera* of botanists. *Betonim*, a name applied to a town of the Gadites (Josh. xiii. 26), is probably a modification of the same word.

The Pistacia-nut tree belongs to the same class, order, and natural family, as the terebinth-tree (see page 66). The green-coloured kernels yield oil. Royle say, "Pistachio-nuts are much eaten by the natives of the countries where they are grown, and they form an article of commerce from Affghanistan to India. They are also exported from Syria to Europe. They might, therefore, well have formed a part of the present intended for Joseph."

GRAPE-VINE.

(*Vitis vinifera.*)

"I am the true vine, and my Father is the husbandman."—JOHN xv. 1.

THE vine is expressed in Hebrew by the word *Gephen*, and in Greek by the word *Ampelos;* while the grape or the fruit of the vine is the *anul* or *yayin* of Hebrew, and the *staphylé* of Greek writers. The plant is called by botanists *Vitis vinifera.* It belongs to the class Pentandria and order Monogynia of the Linnean system, and to the natural order *Vitaceæ* or *Ampelideæ*, the Vine family.

The vine, its fruit, and the wine made from it, are often referred to in the Bible. The plant is said to be a native of the hilly region on the southern shores of the Caspian, and of the Persian province of Ghilan. It has been distributed extensively over the world, and its cultivation is noticed in the earliest times. Noah planted a vineyard after the deluge, and made wine from the grapes (Gen. ix. 20, 21). Wine is mentioned in the interview between Abraham and Melchizedek (Gen. xiv. 18). The vine was known to the Egyptians (Gen.

xl. 9–11), and is represented on their monuments. The Israelites, in their journey through the wilderness, longed for the vines of Egypt (Numb. xx. 5); and the Psalmist, in alluding to God's judgments on Pharaoh, introduces the vines as being destroyed (Ps. lxxviii. 47; cv. 33).

Vineyards abounded in Canaan when the Israelites took possession of it, and the vines were very productive. The men who were sent by Moses to search the land cut in *Nachal-Eshcol*, that is, the Valley of Eshcol, or the Grape Valley, near Hebron, a cluster of grapes which was so large that it was carried by two upon a staff (Numb. xiii. 23). In Syria, at the present day, clusters weighing ten or twelve pounds have been gathered. When Jacob blessed Judah, he made special reference to the vine, as indicating prosperity (Gen. xlix. 11). Frequent allusions occur in the Bible to vineyards, to vine-dressers, to the rejoicings at the vintage, the gathering and the gleaning of grapes, the treading of the grapes, the wine-presses and the wine-fats—all indicating the important place which the vine occupied among the vegetable productions of Palestine. Some choice vines are mentioned under the name of Sorek (Gen. xlix. 11; Isa. v. 2; Jer. ii. 21). The vineyards of Eshcol, Heshbon, Elealeh, Sibmah, Jazer, and Engedi, were celebrated (Song of Sol. i. 14; Isa. xvi. 8–10; Jer. xlviii. 32, 33).

The grape-vine has followed the footsteps of man, and

has been transplanted by him into all parts of the world. The juice of the young fruit, called *verjuice*, is very sour; that of the riper fruit is called *must*, and is used as a refreshing drink in some countries. It is probably referred to in some passages of Scripture in which the juice of the grape and the blood of grapes are mentioned. The dried fruit known as raisins, is also noticed in the Bible (1 Sam. xxv. 18, xxx. 12; 2 Sam. xvi. 1; 1 Chron. xii. 40). Many illustrations are taken from the vine. Israel is represented as a vine brought from Egypt, and planted by the Lord (Ps. lxxx. 8–11; Isa. v. 7; Jer. ii. 21). Dwelling under the vine and fig-tree is an emblem of peace and tranquillity (Micah iv. 4; Zech. iii. 10); a fruitful vine is associated with domestic happiness (Ps. cxxviii. 3). The production of wild grapes, and of grapes of gall, an empty vine, and a strange vine, are used to illustrate the departure of Israel from God (Deut. xxxii. 32, 33; Isa. v. 2, 4; Jer. ii. 21; Hos. x. 1). Wild grapes are by some translated putrid grapes. They are considered by Berkeley as grapes affected with rot or mildew. Our Saviour calls himself the true vine, into which his disciples are grafted, so as to bring forth much fruit (John xv).

WILLOW-TREE.

(*Salix babylonica.*)

"They shall spring up as willows by the water-courses."—ISAIAH xliv. 4.

THE Hebrew words *Oreb* and *Orebim*, and which are also written *Arab* and *Arabim*, occur in the Old Testament, and have been translated willow, or willows. Several species may have been included under the name *orebim*. We have figured *Salix babylonica*, the weeping willow, as being probably one of them, and as being that more especially referred to in Psalm cxxxvii. 1, 2, when Israel in captivity says, "By the rivers of Babylon there we sat down; yea, we wept, when we remembered Zion. We hanged our harps upon the willows in the midst thereof."

Willows belong to the class Diœcia and order Diandria of the Linnean system, and to the natural order Salicaceæ, or the Willow family, consisting of useful timber trees having a tonic and astringent bark, flowers in catkins, and seeds covered with silky hairs.

Willows are found in moist situations, beside running brooks as well as still waters. In the Bible, the locality

of their growth is usually associated with them. Thus, on the first day of the Feast of Tabernacles, the Israelites are enjoined to take boughs of goodly trees, branches [leaves] of palm-trees, and the boughs of thick trees, and willows of the brook, "and to rejoice before the Lord seven days" (Lev. xxiii. 40). These were employed in the construction of booths (Lev. xxiii. 42). Job, in describing behemoth (probably on the banks of the Nile), says—"The shady trees cover him with their shadow; the willows of the brook compass him about" (Job xl. 22). In the seventeenth verse of the same chapter, the word cedar ought to be willow—"He moveth his tail like a willow." In proclaiming the burden of Moab, the prophet says—"Therefore the abundance they have gotten, and that which they have laid up, shall they carry away to the brook of the willows" (Isa. xv. 7). Again, in comforting the church with his gracious promises, God speaks thus by the mouth of his prophet—"And they (their offspring) shall spring up as among the grass, as willows by the water-courses" (Isa. xliv. 4); indicating a constant supply of refreshing water, when the Lord "will pour water upon him that is thirsty, and floods upon the dry ground" (Isa. xliv. 3).

Willows were thus associated both with the joyous and the sorrowful days of the children of Israel. When captives in Babylon, their grief was poured forth under the willows; and in contemplating God's purposes of

mercy towards them, they are directed to the willows as emblems of their growth, and as recalling the willows of the brook with which they rejoiced in their feast days of old.

Another Hrbrew word, *Tzaphtzapha*, or *Zaphzapha*, has been translated willow-tree. It occurs in Ezekiel xvii. 5—"He took also of the seed of the land, and planted it in a fruitful field; he placed it by great waters, and set it as a willow tree." This appears to be a species of willow, called by the Arabs *safsaf*,—*Salix ægyptiaca* of botanists. This tree was noticed by Hasselquist in his journey from Acre to Sidon.

CAMPHIRE.

(*Lawsonia inermis.*—Lin.)

"As a cluster of camphire in the vineyards of En-gedi."—SONG OF SOL. i. 14.

THE Hebrew word *Kopher* or *Copher* occurs in the Song of Solomon, and has been translated *Camphire.* Thus the King says, "My beloved is unto me as a cluster of camphire in the vineyards of En-gedi" (i. 14); and again, "Thy plants are an orchard of pomegranates, with pleasant fruits; camphire, with spikenard" (iv. 13). The Hebrew word resembles the Greek *Kapros* or *Cypros*, which is applied by Dioscorides and Pliny to a plant known to botanists by the name of *Lawsonia inermis.* It belongs to the class Octandria, order Monogynia of the Linnean system, and to the natural order Lythraceæ, the Loosestrife family. It is an odoriferous shrub, the *Henna* or *Alkanna* of Cyprus and Egypt. Its fragrant flowers grow in clusters, and it is used in the East for dyeing the nails, the palms of the hands, and the soles of the feet of an iron-rust colour. Henna powder is procured from the stem and leaves of the plant. It is put into hot water, stirred and boiled

well, and then left on the fire for two hours, until the mass becomes a paste. It is then applied to the hair and the skin, which it tinges of an orange colour. The plant is used for dyeing morocco leather. The custom of dyeing the nails was an ancient one in Egypt. It is said that the nails of mummies, (especially females), have sometimes traces of it. Some think that there is an allusion made to the practice in Deut. xxi. 12, where, in place of "pare her nails," the phrase might be rendered, "adorn her nails."

In addition to the plants which we have figured and described, there are other trees and shrubs which are briefly or very obscurely alluded to in the Bible. The following are recorded here in order to complete the list.

ALMUG OR ALGUM TREE.

(*Santalum album.*)

"The navy of Hiram brought in from Ophir great plenty of almug trees."—1 KINGS x. 11.

THE Hebrew words *Almuggim* and *Algummim*, are translated Almug or Algum trees, in our version of the Bible. The plant referred to is supposed to be the sandal-wood of India, called *Santalum album* by botanists, and belonging to the natural order Santalaceæ, or the Sandal-wood family. The wood was brought from Ophir (probably some part of India) by Hiram, and was used in the formation of pillars for the temple, and for the king's house, as well as for harps and psalteries (1 Kings x. 11, 12; 2 Chron. ix. 10, 11). The wood is fragrant, and is used for incense in China. Large quantities of Sandal-wood are cut in Malabar for export to China and different parts

of India. The outer wood of the stem is white and has no odour, while the central part, especially near the root, is fragrant.

ALOES-TREE, OR LIGN-ALOES-TREE.

(*Aquilaria Agallochum.*)

"All thy garments smell of myrrh, aloes, and cassia."—PSALM xlv. 8.

THE Hebrew words, *Ahalim* and *Ahaloth*, and the Greek *Aloe*, are rendered Aloes, in our version of Scripture. The substance seems to have been the fragrant wood of *Aquilaria Agallochum*, a plant belonging to the natural order Aquilariaceæ. Trees of lign aloes are referred to in Numbers xxiv. 6. The use of aloes as a perfume is noticed in Psalm xlv. 8; Proverbs vii. 17; in the Song of Solomon iv. 14. The use of aloes in perfuming the coverings of the dead is referred to (John xix. 39, 40), where it is said that Nicodemus, after the manner of the Jews, "brought a mixture of myrrh and aloes, about an hundred pound weight," in order to impart fragrance to the linen clothes with which our Saviour's body was wound. We must not confound this aloes with the bitter aloes so well known as a medicine, which is the produce of a totally different plant, and which does not possess the fine fragrance of the substance now under consideration.

EBONY-TREE.

(*Diospyros Ebenus.*)

"They brought thee for a present horns of ivory and ebony."—EZEK. xxvii. 15.

THE Hebrew word, *Hobnim*, occurs in Ezekiel xxvii. 15, and has been translated *Ebony*. This wood appears to be the product of various trees, more particularly species of Diospyros—such as *Diospyros Ebenus*. They belong to the natural order Ebenaceæ, and are valued for their hard and durable timber. The outside wood of the Ebony-tree is white and soft, while the central part is black and hard.

JUNIPER-BUSH.

A KIND OF BROOM.

(*Genista monosperma.*)

"He lay and slept under a juniper-tree [Rothem]."—1 KINGS xix. 5.

THE Hebrew word *Rothem* or *Rotem* has been rendered *Juniper* in our version. It seems to be the same as the Arabic word *Retem*, and the *Retama* of the Moors. These are applied to a kind of broom. It is believed that *Rotem* is the *Genista monosperma* of botanists, belonging to the natural order Leguminosæ. It is a shrubby plant with white blossoms. It is found in Spain, Portugal, Barbary, Egypt, Syria, and Palestine. Elijah rested under the shade of the Rotem or broom (1 Kings xix. 4, 5).

Lord Lindsay states that, during his travels in the valleys of Mount Sinai, "the *rattam*, a species of broom, bearing a white flower, delicately streaked with purple, afforded him shelter from the sun while in advance of the caravan." The use of the plant as fuel is referred to in Ps. cxx. 4, "sharp arrows of the mighty, with coals of juniper;" and it would appear that its roots were eaten in certain circumstances, for Job says, "who cut up mallows by the bushes, and juniper-roots for their meat" (Job xxx. 4).

STORAX-TREE.

POPLAR OF THE BIBLE.

(*Styrax officinale.*)

"They burn incense under oaks and poplars and elms."—Hos. iv. 13.

The Hebrew word *Libneh* has been translated *Poplar* in Genesis xxx. 37, and Hosea iv. 13. While some translators consider that the tree is the White Poplar, others, of greater authority, think that it is the Storax-tree, the *Styrax officinale* of botanists, belonging to the natural order Styracaceæ, or Symplocaceæ, or the Storax family. The tree is a native of Greece, Asia Minor, and Syria. It yields the fragrant resin called storax, which is used as a pectoral remedy.

OREN.

A KIND OF PINE.

(*Translated Ash-tree.*)

"He planteth an ash [Oren], and the rain doth nourish it."—ISAIAH xliv. 14.

THE Hebrew word *Oren*, which occurs in Isaiah xliv. 14, is translated *Ash* in our version. It is supposed by some to mean a kind of Pine-tree, while others look upon it as a thorny shrub, allied to Rhamnus or Capparis. We still want information on the subject.

ESHEL, OR TAMARISK-TREE.

"Saul abode in Gibeah under a tree [Eshel, or Tamarisk] in Ramah."—1 Sam. xxii. 6.

ESHEL is a Hebrew word, which occurs in Gen. xxi. 33, where it is translated *grove*, and in 1 Sam. xxii. 6 and xxxi. 13, where it is translated *tree*. It is said that "Abraham planted a grove (Eshel) in Beer-sheba, and called there on the name of the Lord;" that "Saul abode in Gibeah under a tree (Eshel) in Ramah;" and finally, that Saul and his sons were buried "under a tree (Eshel) at Jabesh." Royle considers the word as being equivalent to the Arabic, *Asul* or *Athul*, which refers to a large species of tamarisk; and he regards Eshel as *Tamarix orientalis*, the eastern Tamarisk-tree. Bové mentions the tamarisk as occurring in Syria. It is a tree which thrives in arid sandy situations.

MYRRH-TREE.

(*Balsamodendron Myrrha.*)

"Perfumed with myrrh and frankincense."—Song of Sol. iii. 6.

THE Hebrew word *Mor* and the Greek *Myrrha* are translated *Myrrh* in the Bible. This substance is a fragrant sort of gum, which exudes from various trees in Ararba and Abyssinia, one of the chief being *Balsamodendron Myrrha*, or the Myrrh Balsam-tree, belonging to the natural order Amyridaceæ, or the Myrrh family. Myrrh was celebrated as a perfume, and as a stimulant medicine. It was burned in temples, and was employed in embalming (John xix. 39). It entered into the composition of the holy anointing oil (Exod. xxx. 23). It was given as a present from its value and rarity (Matt. ii. 11), and its fragrance is often made mention of (Ps. xlv. 8; Song of Sol. iii. 6; iv. 6, 14; v. 1, 5, 13).

Many species of Balsamodendron are called Balsam-trees. They are mentioned under the Hebrew names of

Basam and Baal-Shemen. The word Tzeri, also translated balm, occurs in Genesis xxxvii. 25; xliii. 11; Jeremiah viii. 22; xlvi. 11; li. 8; and Ezekiel xxvii. 17. The word Basam is often translated spices (Song of Sol. v. 1, 13; vi. 2; Exod. xxxv. 28; 1 Kings x. 10).

THYINE-WOOD.

(*Xylon Thyinum.*)

"Merchandise of silk, and scarlet, and all thyine wood."—REV. xviii. 12.

THYINE-WOOD is mentioned in Revelation xviii. 12, as one of the articles of merchandise in the Apocalyptic Babylon. This appears to be the Citron-wood of the Romans, the *Alerce* of the Moors, the *Thuja articulata* of Linnæus, and the *Callitris quadrivalvis* of modern botanists. This tree, called also the Arar-tree, belongs to the natural order Coniferæ, or Cone-bearers, and the suborder Cupressineæ, or the Cypress tribe. It is a native of Mount Atlas, and other hills on the coast of Africa.

TAPPUACH.

(*Translated Apple-tree, and Apples.*)

"A word fitly spoken is like apples of gold [golden citrons] in pictures [baskets] of silver."—PROV. xxv. 11.

THE Hebrew word *Tappuach* occurs in Proverbs xxv. 11; Song of Solomon ii. 3, 5; vii. 8; viii. 5; and in Joel i. 12.

There have been great differences of opinion respecting the correct translation of this word. Rosenmüller and others render it Quince, while Royle renders it Citron, and says that its rich yellow colour (citrons of gold, or golden citrons), its fragrant odour (smell like citrons), and the handsome appearance of the tree, whether in flower or in fruit, are particularly suited to all the passages of Scripture in which the word Tappuach occurs. The Jews use the citron fruit at the present day at the Feast of Tabernacles. This is done from the idea that the word *Etz-Hadar*, translated "boughs of goodly trees" in Leviticus xxiii. 40, means branches of the citron-tree, which are thus associated with palm leaves, branches of thick trees (*Etz aboth*), and willows, in the Feast of Tabernacles.

The citron is the produce of *Citrus medica*, and belongs to the natural order Aurantiaceæ, or the Orange family.

THORNS AND BRIERS.

"All the land shall become briers and thorns."—ISAIAH vii. 24.

THE Hebrew words *Koz*, *Chedek*, *Choach*, *Naazuz*, *Shait*, *Shamir*, *Sillon*, *Sirim*, *Sirpad*, *Zinnim*, &c., have been translated variously thorns and briers in the Old Testament; and the word *Akantha*, is the thorn of the New Testament. It is impossible to say whether or not

a particular species of plant was intended by each of these terms. Most of them apply generally to thorny plants, of which there are many in Palestine at the present day. Commentators mention among the thorny plants of the Holy Land species of *Zizyphus*, such as *Zizyphus Spina Christi*, also *Paliurus aculeatus*, *Ononis spinosa*, *Solanum spinosum*, *Tribulus terrestris*, and species of *Rhamnus*.


HERBACEOUS PLANTS.

ANISE OR DILL.

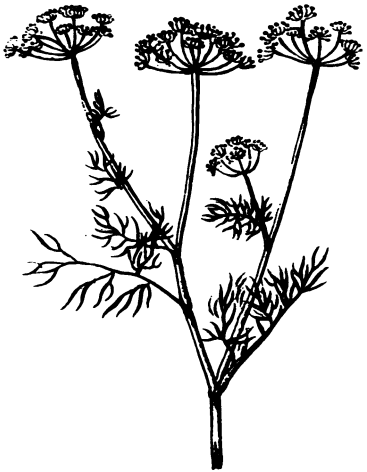
(*Anethum graveolens*—Lin.)

"Ye tithe mint and anise."—MATT. xxiii. 23.

THE word *Anethum* occurs in Matthew xxiii. 23, and has been translated *Anise.* The plant, however, referred to in this passage appears to be that now known by the name of *Dill, Anethum graveolens* of botanists. This plant belongs to the class Pentandria, order Digynia, of the Linnean system, and to the natural order Umbelliferæ. The common Dill is a herbaceous biennial plant, which is a native of the south of Europe and Egypt, and is also found near Astracan, Buenos Ayres, and at the Cape of Good Hope. The name is derived from the old Norse word to dill or soothe, referring to its carminative qualities in allaying gripes. It is one of the garden plants of which the Pharisees were in the habit of paying tithes. The plant is aromatic. It resembles fennel, and has finely divided leaves, which are used in pickles and in soups. Pliny mentions it as a condiment (xix. 61, xx. 75). It is used also medicinally as a carminative in the form of distilled

water of Dill. The fruit yields a pale yellow oil, having a pungent odour, and an acrid sweetish taste.

The true Anise, *Pimpinella Anisum*, has similar properties, and is also cultivated in Europe. The tithe of Dill payed most punctually by the Pharisees in this and in other instances, was in conformity with the letter of the law, but they neglected more important matters. These they ought to have done, and not leave the other undone (Luke xi. 42).



DILL (Anise)

SWEET CANE.

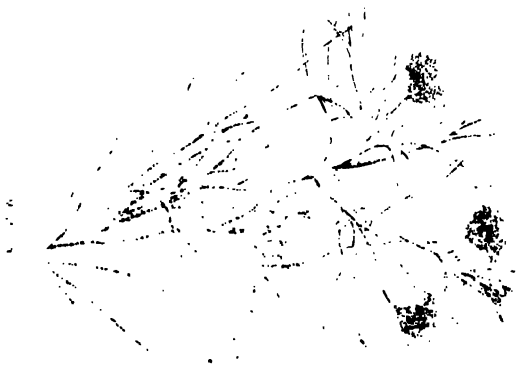
SWEET CANE.

(*Andropogon calamus-aromaticus*—Royle.)

"The sweet cane from a far country."—JER. vi. 20.

THE Hebrew words *Kaneh-Bosem* and *Kaneh-Hattob*, meaning reed of fragrance and fragrant reed, are translated sweet cane in our version of the Bible. The word Kaneh is applied generally to a reed, and seems to be equivalent to the Latin *Canna*, as well as to the Greek *Calamos*, whence the name culm applied to stems of grasses. This Sweet Cane was an aromatic reed-like plant, remarkable for its fragrance, and imported from a far country (Jer. vi. 20). It is called Calamus in Ezek. xxvii. 19, and Sweet Calamus in Exodus xxx. 23, and was used in compounding the holy ointment. In the flourishing days of Tyrus, her merchants imported calamus. After examining the statements of Dioscorides and other ancient authors, Royle concluded that the Sweet Cane was a grass which he has called *Andropogon calamus-aromaticus*. It is a native of India, where it is used in ointments and frankincense. It yields a fragrant oil called kuskuss, or roussa oil, or

grass-oil. Royle states that the plant is found in Central India, that it extends as far north as Delhi, and as far south as between the Godavery and Nagpore, where it is called spear-grass. Another species, *A. Schoenanthus*, is the Lemon-grass or Ginger-grass, which some think to be the sweet cane of Scripture. It yields a fragrant oil. *A. citronum* supplies the perfume called citronelle, while *A. muricatus* furnishes kum-kus oil, which is used as medicine in India. All these canes are thus more or less sweet as regards their fragrance.



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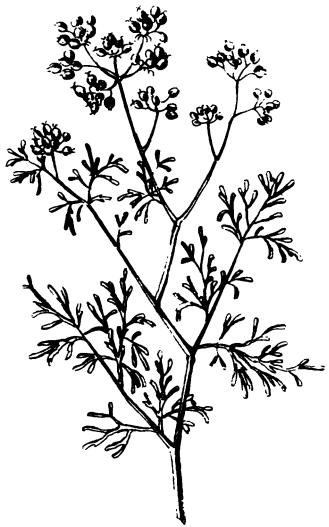


CORIANDER.

CUMMIN.

CORIANDER.

(*Coriandrum sativum* - Lin.)

"And the manna was as coriander seed."—NUM. xi. 7.

THE Hebrew word *Gad* occurs in two passages of Scripture,—Exod. xvi. 31, and Num. xi. 7, —and has been translated *Coriander*. In both places the word is used to describe the manna, which was white and round like *Gad*. There seems to be good reason for believing that the translation of the word is correctly given, and that the round fruit of the coriander is referred to. *Coriandrum sativum* is an annual plant, belonging to the class Pentandria and order Digynia, of the Linnean system, and to the natural order Umbelliferæ. The plant is about two feet high; its flowers are small and white, and are produced in umbels, and the fruit (often erroneously called seed) consists of two hemispherical carpels, which are so combined as to form a little ball or globe, of the size of a Pepper-corn. Each of these balls contains two seeds. The plant is very common in the south of Europe, and it grows also in India and other Eastern countries. It is cultivated in Britain on

account of its seeds and fruit, which are used by confectioners, druggists, and distillers. About fifteen tons of the fruits are annually imported from Germany. The leaves are used as a salad. The Greek name of the plant is *Korion* or *Koriannon*, whence the English name *Coriander*. The fruit has an aromatic taste and smell, and yields by distillation a volatile oil, to which its properties are due.

Man or Manna, rendered Manna in the Bible, is the name applied to the food with which God fed the Israelites in the Desert (Deut. viii. 3; Neh. ix. 20; Ps. lxxviii. 24; John vi. 31, 49, 58; Heb. ix. 4). The food was miraculously brought to the encampment. We know nothing about it except that it was in small round grains like Coriander-seed or fruit, and that it tasted like wafers and honey. Some authors have supposed that there are similar substances produced by plants at this day in the East, and which are now called Manna. Among these are reckoned exudations from *Tamarix gallica*, French Tamarisk, and *Alhagi Maurorum*, or Camels' Thorn. Royle remarks, "None of these mannas explain—nor can it be expected that they should explain—the miracle of Scripture by which abundance of manna is stated to have been produced for millions in a country where hundreds cannot now obtain subsistence."

CUMMIN.

(*Cuminum Cyminum*—Lin.)

"Ye pay tithe of mint and anise and cummin."—MATT. xxiii. 23.

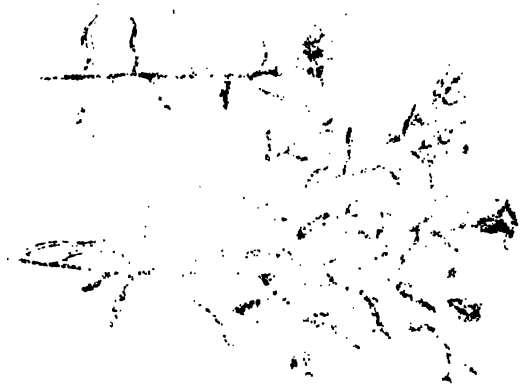
IN Matt. xxiii. 23, a plant is mentioned under the Greek name of *Cuminon*, as being tithed by the Pharisees, and in Isa. xxviii. 25, 27, the Hebrew word *Cummin* or *Kammon* occurs. Both seem to refer to the plant called Cummin at the present day, the *Cuminum Cyminum* of botanists. The plant belongs to the class Pentandria, and order Digynia, of the Linnean system, and to the natural order Umbelliferæ. It is an annual plant, bearing whitish or reddish flowers, and yielding an aromatic fruit. What are commonly called Cummin-seeds are really single-seeded fruits. They contain a fragrant volatile oil. The plant is said to be a native of Upper Egypt and Ethiopia, but it is cultivated in Eastern countries as well as in the south of Europe, and its fruit is used as a medicine and a condiment. Britain receives its supply of Cummin chiefly from Malta and Sicily.

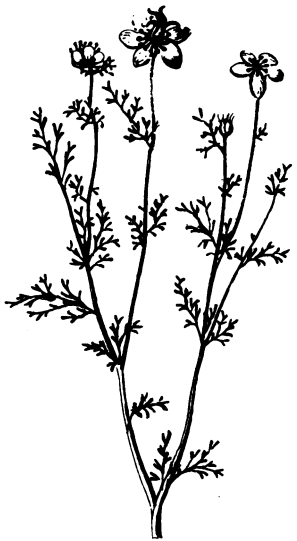
Isaiah mentions the cultivation of Cummin in ancient

times, "When he [the ploughman] hath made plain the face thereof, doth he not cast abroad the fitches, and scatter the cummin?" (Isa. xxviii. 25); and he alludes to the mode in which the fruit was reaped when he says, "For the fitches are not threshed with a threshing instrument, neither is the cart wheel turned upon the cummin; but the fitches are beaten out with a staff, and the cummin with a rod" (Isa. xxviii. 27). This mode of preparation is required in the case of Cummin, the fruit of which is easily separated by a slight shake, but which, if bruised by a wheel, would be injured, inasmuch as the oil, to which it owes its properties, would be pressed out. The scribes and Pharisees were condemned by our Lord because, while they paid tithe of Cummin, they neglected the weightier matters of the law,—judgment, mercy, and faith. The formal offering was made, but there was no life-giving spirit.

It is said that in nations where the rite of circumcision was practised, bruised Cummin fruit mixed with wine were used as a styptic after the operation.

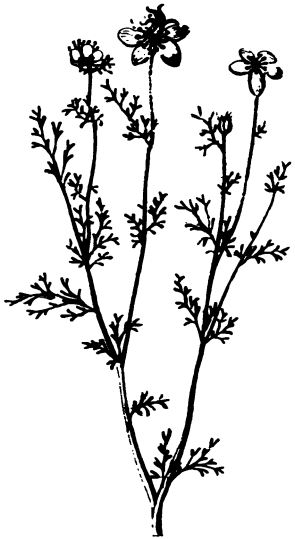
In 1858 there were imported into Britain 695 cwts. of cummin fruits.





FITCHES.

FLAX.



FITCHES.

FLAX.

making bread; and hence in Ezekiel it is said, "Take thou also unto thee wheat, and barley, and beans, and lentiles, and millet, and *fitches*, and put them in one vessel, and make thee bread thereof" (Ezek. iv. 9).

There is some difficulty in ascertaining what plant is meant by the term Fitches. Some have referred it to the common vetch (*Vicia sativa*); but this does not seem to be correct.

In the Septuagint the name *Melanthia* is given, derived in part from the word *melas*, black. The name is considered as referring to a plant with black seed; and after careful comparison of names, Royle and other authorities have concluded that the plant is the *Nigella sativa* of botanists. The vulgar name of Kezach is stated to be nielle—that is, nigelle. This plant is called Melanospermum, or black seed, by the Greeks, and its Arabic name means the same thing, while the Latin, Nigella, also indicates blackness. By old Latin authors the plant was called *Git* or *Gith*, and it is referred to by Pliny (lib. xx. c. 17). The plant is commonly cultivated in the East. Its seeds have aromatic qualities, and were used like pepper as a condiment with food. Hence they are mentioned with other aromatic and carminative plants, such as cummin and anise. They are sometimes called black cummin. Dioscorides and Pliny refer to their use in bread.

The seeds are easily beaten out of the seed-vessel;

and allusion is made to this in Isaiah xxviii. 27, where the prophet says, "The fitches are beaten out with a staff;" whereas the cummin required a rod. When the prophet refers to the different methods of preparing the fitches, the cummin, and the bread-corn, by beating, threshing, and bruising, he indicates the modes in which God corrects his people.

The genus Nigella receives the English name of Fennel-flower, from its leaves resembling those of fennel. It belongs to the class Polyandria, order Pentagynia of the Linnean system, and to the natural order Ranunculaceæ or Crowfoots, and the Hellebore section of that family. There are ten known species. They are erect, annual, herbaceous plants, found in the Mediterranean region as well as in Western Asia. Their flowers are solitary at the tops of the stems or branches, and they are of a whitish blue, or yellow colour. They have a coloured calyx, small petals, acrid aromatic seeds, and finely-cut leaves. Their seed-vessel consists of numerous carpels, more or less united together, and opening on the inner side so as to scatter the seeds.

FLAX.

(*Linum usitatissimum*—Lin.)

"Smoking flax shall he not quench."—Isa. xlii. 3; Matt. xii. 20.

THE Hebrew word *Pishtah* has been proved to mean the Flax or Lint plant. It is the *Linum usitatissimum* of botanists, and the *Linon* of the Greeks. The plant belongs to the class Pentandria and order Pentagynia of the Linnean system, and to the natural order Linaceæ, the Flax family. The species are herbs or undershrubs, with narrow undivided leaves, and blue, red, or white flowers, arranged in racemes or clusters. The number five prevails in the genus. Thus the plants have five sepals, five petals, five perfect and five abortive stamens, and five or ten divisions of their seed-vessel. There are about eighty known species found in the temperate and warm or intertropical regions of the Old and New World, and a few in the tropical parts of South America.

The cultivated flax plant has a blue flower. It yields fibres which are used in the manufacture of linen. Its seeds are also used to yield oil, and the substance left, after the oil has been expressed, is the oil-cake which is

given as food to cattle. Frequent references are made in the Bible to flax and linen. In Egypt the flax-plant was extensively cultivated, and employed for manufacture. The cloth made from it was used to wrap their mummies. By examining the mummy cloth under the microscope we ascertain that it was formed from the fibrous part of plants, and not from cotton. On various Egyptian monuments the plant and the preparation of its fibres are represented. The usual mode in which flax is prepared is by steeping it in water, allowing all the softer parts to be removed, and retaining the fibrous portion. The process is tedious, and is often accompanied with injury to the fibres. Of late years great improvements have taken place in the manufacture, so that the separation of the fibres is effected with rapidity.

The first allusion to the flax-plant in the Bible is when the plague of hail was sent by God as a judgment on the Egyptians: "And the flax and the barley was smitten: for the barley was in the ear, and the flax was bolled" (Exod. ix. 31). The period of the year when the plague was sent was spring, probably about April, a time when hail-storms were very uncommon. It would appear, therefore, that, as is the custom in India now-a-days, the flax and barley were sown in the months of September and October, and the reaping took place in the early part of summer. The flax being bolled means that the flower-buds were formed. Some have translated the

passage, " the flax was in blossom." Whichever translation is taken, it is clear that the flax was far advanced in spring, so as to be injured by the hail. God showed his power and sovereignty by destroying one of the sources whence the Egyptians derived articles of comfort and luxury. That flax was cultivated in Palestine is shown in Joshua ii. 6, where it is stated that the faithful Rahab used flax to hide the spies sent by Joshua to examine Jericho: " But she had brought them up to the roof of the house, and hid them with the stalks of flax, which she had laid in order upon the roof." In the history of Samson also, (Judges xv. 14), reference is made to flax as being well known. See also Hosea ii. 5, 9. The spinning of flax by the hand with the spindle and distaff is alluded to in Proverbs xxxi. 13, 19, where it is said of the virtuous woman, " She seeketh wool and flax, and worketh willingly with her hands..... She layeth her hands to the spindle, and her hands hold the distaff."

This mode of preparing yarn is portrayed on the marbles of Athens and Rome, and is still practised in some countries. The working of fine flax and linen was an important manufacture, and the destruction of those employed in it is mentioned by Isaiah as one of the awful judgments to be inflicted on Egpyt: " Moreover, they that work in fine flax, and they that weave networks [or white works], shall be confounded" (Isa. xix. 9).

Flax seems to have been put to various uses, as in the

preparation of linen clothing, curtains, ephods, girdles, mitres, bonnets, ropes, and wicks. In many passages in Exodus, Leviticus, Deuteronomy, and Chronicles, allusions are made to the use of linen and fine linen in the formation of the priests' garments, and of the hangings of the tabernacle. Samuel ministered before the Lord with a linen ephod (1 Sam. ii. 18). David danced before the ark, girded with a linen ephod (2 Sam. vi. 14). Jeremiah was told by the Lord to get a linen girdle, and put it upon his loins (Jer. xiii. 1). Solomon had linen yarn brought out of Egypt (1 Kings x. 28; 2 Chron. i. 16). Ezekiel speaks of a cord or measuring-line of flax (Ezek. xl. 3). Hosea also refers to flax as used for making garments (Hos. ii. 5, 9).

The words translated linen and fine linen in these passages are *Shesh* or *Sheshi*, *Bad*, and *Butz*. Some suppose that *Shesh* refers to hemp. The word resembles the Arabic name *Haschesch*, which is applied to hemp. There is considerable difficulty in determining the sources whence the linen of Scripture was derived. (See HEMP.)

The use of Flax for wicks is beautifully referred to by Isaiah. When describing the tenderness and love of the Saviour, he says, "A bruised reed shall he not break, and the smoking flax shall he not quench" (Isa. xlii. 3). This passage is also quoted in Matthew xii. 20, the only place in the New Testament where the word flax occurs.

In the New Testament, linen is mentioned on several occasions. The Greek word in these passages is *Byssus.* It was in linen that the body of Christ was wrapped by Joseph of Arimathea (Matt. xxvii. 59; Mark xv. 46; John xix. 40); and the linen clothes were seen by the disciples when they visited the tomb of their risen Lord (Luke xxiv. 12; John xx. 5–7).

Fine linen constituted the clothing of the rich and great in former times. Pharaoh arrayed Joseph in a vesture of this kind (Gen. xli. 42). Mordecai went out from the presence of the king with a garment of fine linen (*butz* or *buz*) and purple (Esther viii. 15).

Fine linen (*shesh*) is mentioned by Isaiah and Ezekiel as one of the luxuries of Judah, Jerusalem, and Tyre (Isa. iii. 23; Ezek. xvi. 10, 13; xxvii. 7, 16). The rich man was clothed in purple and fine linen (Luke xvi. 19). Fine linen is recorded among the costly merchandise of mystic Babylon, over the loss of which the merchants of the earth shall weep and mourn (Rev. xviii. 12, 16). In the last two passages the word used for fine linen is *Byssus.*

GALBANUM.

(*Galbanum officinale*—D. Don.)

"Sweet spices, stacte, and onycha, and galbanum."—EXOD. xxx. 34.

THE Hebrew word *Chalbaneh* or *Chelbena* occurs only once in the Bible, and it has been translated *Galbanum*. We know that it was used along with other spices in forming an oil of holy ointment—an ointment composed after the art of the apothecary, an holy anointing oil. It is by no means clearly ascertained what the substance was. The Galbanum of the present day is a fetid gum resin procured from some umbelliferous plant, and is imported from India and the Levant. The substance occurs in irregular pieces, about the size of a pea, which are usually agglutinated into masses of a greenish-yellow colour, having a strong disagreeable odour, and an acrid bitter taste. Some authors name the plant *Galbanum officinale*. The gum resin exudes from the plant, and is collected in tears. Many umbel-bearing plants yield gum-resins of a similar character, which are used by Eastern nations as condiments, although not very palatable to Europeans.

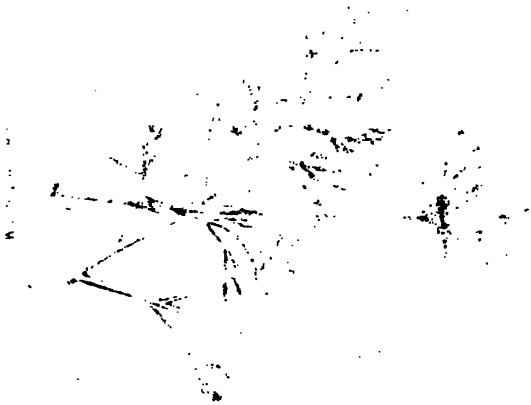
WILD GOURD.

(*Citrullus Colocynthis*—Schrad.)

"And gathered thereof wild gourds his lap full."—2 KINGS iv. 39.

THE Hebrew word *Pakyoth*, translated *wild gourds*, occurs in 2 Kings iv. 39, where it is stated that when Elisha came to Gilgal, he told his servant to set on the great pot, and seethe pottage for the sons of the prophets; and that "one went out into the fields to gather herbs, and found a wild vine, and gathered thereof wild gourds his lap full, and came and shred them into the pot of pottage;" and that when they were eating it they cried out that there was death in the pot.

It is obvious, from the narrative, that the person who went to gather the herbs had made a mistake in regard to them, and had taken some nauseous and poisonous fruit instead of what was wholesome. From a careful examination of the Hebrew word and of the Arabic version of it, commentators are disposed to think that the Wild Gourd was the fruit of the Colocynth plant, the Coloquintida or bitter apple, *Cucumis* or *Citrullus Colo-*



WILD GOURD

From the Scripture Scenes.

THE Hebrew word *Pakyath*, rendered in our version *gourds*, occurs in 2 Kings iv. 39, where it is stated that when Elisha came to Gilgal, a famine was then set on the great pot and [illegible] of the prophets: and the [illegible] other herbs, and filled [illegible] wild vine [illegible] of it lap full, and [illegible] cried out that there [illegible]

[illegible] conjecture, that the [illegible] had made a mistake [illegible] some manuscripts and [illegible] reading. From [illegible] and of the Arabs [illegible] disposed to the [illegible] the Wild [illegible] the Colocynth [illegible] Coloquintida [illegible] *Cucumis* or *Citrus* [illegible]

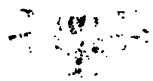
GALBANUM.

WILD GOURD.

cynthis of botanists. It belongs to the class Monœcia, order Pentandria of the Linnean system, and to the natural order Cucurbitaceæ, the cucumber family. The fruit of it is used medicinally as an active purgative. It resembles a wild vine, in its trailing mode of growth, and in its tendrils. Its fruit is round, and tempting in appearance; but the pulp of it is very bitter, and hurtful when taken even in small quantities. In all these respects, then, it would agree with the facts as given in the Scriptures. It was probably mistaken for some of the other species of cucumber or gourd which have eatable fruit. In the tribe of plants to which the cucumber, melon, gourd, and vegetable marrow, belong, there are several bitter, acrid, and even poisonous species. Besides the colocynth, there is another, called the squirting cucumber, which acts as a poison. It receives its name from the fact that, when ripe, the seeds are squirted out from the interior of the fruit with great force, at the point where the stalk is attached. Some authors think that, as the Hebrew word is derived from the verb to burst, the plant may be this cucumber. In the young state, the fruit is very like the young cucumbers called Gherkins. The fruit is a drastic purgative, and acts as a poison. Both of these plants are found in Palestine; and the colocynth, in particular, trails along the ground in a luxuriant manner there. It abounds in the desert parts of Syria, Arabia, and Persia, and on the banks of the

Euphrates and Tigris. Many miles of country are sometimes covered with this plant, which bears a prodigious number of gourds. The fruit is imported into this country from Smyrna, Trieste, France, and Spain.

There is also another species of cucumber having similar properties, and called at the present day the Prophets' or Globe Cucumber—*Cucumis prophetarum*—probably from an allusion to the statements in the Bible relative to wild gourds. The fruit is small, being not larger than a cherry. There is a Hebrew word, *Pekaim*, translated *knops*, which occurs in 1 Kings vi. 18, and vii. 24, and which seems to be derived from *Pakyoth*. These knops were of a rounded form, and were probably made in imitation of the fruit of the wild gourd.



MINT

Page 126.

ROSE OF SHARON.

Page 125

or nettleworts. It is a native of Persia, and is now extensively cultivated in Europe as well as in India. The variety cultivated in India is sometimes called *Cannabis indica*, and is remarkable for its narcotic qualities. The dried flowering tops of the female plant from which the resin has been removed are used to form the medicinal extract and tincture. The resinous matter covering the leaves is called Churrus, and the names Bhang, Gunjah, and Haschesch, are given to the dried plant in different states. It seems likely that the Hemp plant was cultivated in Egypt in ancient times, as well as the Flax plant; but accurate precise information on the subject is still wanting. The Hebrew word *Bad* is also translated linen. Thus it occurs in Exodus xxxix. 28, where it is said that they made for Aaron and his sons "a mitre of fine linen, and goodly bonnets of fine linen, and linen breeches of fine twined linen." The Hebrew word *Butz* or *Buz* is also translated fine linen and white linen, as in 1 Chronicles iv. 21; Esther i. 6; Ezekiel xxvii. 16, &c. In the New Testament the Greek word *Byssus* is translated fine linen, as in Luke xvi. 19; Revelation xviii. 12, 16, and xix. 8, 14.

(See also FLAX.)

SAFFRON.

(*Crocus sativus*—Lin.)

"Thy plants are . . . . spikenard and saffron."—SONG OF SOL. iv. 14.

THE Hebrew word *Karcom* or *Carcom* occurs in the Song of Solomon iv. 14, where it is translated *saffron*. It is there mentioned along with other fragrant substances and spices, as spikenard, calamus, cinnamon, frankincense, myrrh, and aloes. In the Greek it is rendered by the word *Krokos*, and the Arabic name is *Safran*. The plant is the *Crocus sativus* of botanists. It belongs to the class Triandria, order Monogynia of the Linnean system, and to the natural order Iridaceæ or Iris family. It is mentioned by ancient classical authors, and it has been cultivated from the earliest times in Asiatic countries. At the present day it is grown extensively in Persia and Kashmir. The Saffron of commerce is imported from Spain, France, and Naples. It is a portion of the central part of the flower called the style or the stigmas. This portion is removed and dried. It is of an orange-brown colour, and has a powerful aromatic odour. When

rubbed on the moistened finger, it tinges it intensely orange-yellow. Cake saffron is formed by the stigmas being pressed together, and is imported from Persia into India. In Eastern countries Saffron was highly esteemed as a kind of spice, which was used along with food. In India at the present day Saffron from Kashmir is employed to colour and flavour native dishes. The cultivation of the Saffron crocus was recommended by ancient writers as a means of attracting bees. The plant is cultivated in England, as at Saffron-Walden in Essex, which receives its name from that circumstance. Costly perfumes were made from the plant. Rosenmuller says that "not only saloons, theatres, and places which were to be filled with a pleasant fragrance, were strewed with this substance, but all sorts of vinous tinctures retaining the scent were made of it, and the perfume was poured into small fountains, which diffused a highly-esteemed odour. Even fruit and comfitures placed before guests, and the ornaments of the rooms, were spiced over with it. It was used for the same purposes as the modern pot-pourri." Saffron is used medicinally in the form of tincture, and as an ingredient of aromatic powder.

The fragrance of this plant and others is used in Scripture to shadow forth the graces of the Christian, as brought out by the Sun of righteousness, and by the breathing of the Spirit, who blows upon the garden, and makes the spices thereof flow out.

LENTILS.

Page 124

RUE.

Page 124

LENTILES.

(*Ervum Lens.*—Lin.)

"Jacob gave Esau pottage of lentiles."—GEN. xxv. 34.

THE Hebrew word *Adashim* occurs in several places in the Old Testament, and it has been translated lentiles or lentils. These are the seeds of a kind of pulse called *Ervum lens* by botanists. The plant is the *Phakos* of the Greek, the *Addas* of the Arabic. It is an annual, and is the smallest of the cultivated plants of the pea-tribe. It flowers in May, and ripens its fruit in July. The seeds contained in the pods are small and flattened, resembling a double-convex *lens*, or magnifying glass; hence their name. The plant belongs to the class Diadelphia, order Decandria, of the Linnean system, and to the natural order Leguminosæ, sub-order Papilionaceæ. It is cultivated in the south of Europe, Bombay, Egypt, and the Levant. Virgil in the "Georgics" speaks of the Pelusian lentil. It is sometimes used as fodder in England; and an attempt was made not long ago to raise it as pulse in a sheltered locality in Scotland. It

is a weak plant, attaining a height of eighteen inches, supporting itself by tendrils which twine round other plants. Its leaves are compound, with usually eight pairs of leaflets in each, and have lanceolate, fringed stipules. The peduncles are usually two-flowered, and are about as long as the leaves. The flowers are purple and pea-like. The fruit is a short pod containing two or three seeds. The seeds supply nutritious food, and are employed for making pottage, which is of a yellowish hue or reddish colour. The red pottage which Jacob supplied to Esau, and for which the latter sold his birthright, was made of lentiles (Gen. xxv. 29–34).

Lentiles were cultivated like peas and beans, and we find in 2 Samuel xxiii. 11, an allusion to a field of lentiles which was protected from the Philistines by Shammah, one of David's mighty men. Lentiles are noticed among the provisions brought by Shobi, Machir, and Barzillai to David, when he was in the wilderness on account of the rebellion of Absalom (2 Sam. xvii. 28).

In times of scarcity lentiles were mixed with wheat, barley, millet, and fitches in making bread (Ezek. iv. 9). In the southern parts of Egypt it appears that lentiles with a little barley formed almost the only bread used by the poorer classes. Some of the paintings on the tombs of the ancient Egyptians represent the

cooking of lentiles, and the preparation of pottage from them.

In some Roman Catholic countries lentiles are used as food during Lent; and some say that the name of the season is derived from this circumstance.

The Arabs have a tradition that the place where Esau sold his birthright is in Hebron, near the cave of Machpelah; and it is said that a college of Dervishes near the spot daily cook pottage of lentiles mixed with pot-herbs, for distribution among the poor.

RUE.

(*Ruta graveolens.*—Lin.)

"Ye tithe mint and rue, and all manner of herbs."—LUKE xi. 42.

THE Greek word *Peganon*, translated Rue, occurs once in Scripture, in Luke xi. 42, "But woe unto you, Pharisees! for ye tithe mint and rue, and all manner of herbs, and pass over judgment and the love of God: these ought ye to have done, and not to leave the other undone." In the parallel passage, Matthew xxiii. 23, *Anethon*, or *dill* (translated anise), is named instead of rue. No doubt, both were mentioned by our Lord, and each is recorded by a different evangelist. Both of these herbs were cultivated in Eastern gardens, as they are at the present day. Rue is a strong-scented plant (*Ruta graveolens* of botanists), which abounds in oil. The plant belongs to the class Octandria, and order Monogynia of the Linnean system, and to the natural order Rutaceæ. The plants belonging to the rue family are remarkable for the volatile oil which they yield. One of them, the *Dittany*, or *Fraxinella* (*Dictamnus Fraxinella*), is said to give out so much oily

vapour in a warm still evening, that the air around it becomes inflammable. Rue grows wild in the south of Europe and in Palestine. Hasselquist mentions having seen it on Mount Tabor. It is cultivated as a pot-herb, and more especially as a sort of spice or condiment to be used along with food. In old times an aroma was imparted to wine by means of rue. It is also a medicinal plant, and has been prescribed to allay spasms. Oil of Rue is distilled in England from the fresh leaves and the unripe fruit. It has a pale yellow colour, a disagreeable odour, and a bitter acrid taste. The tithing of it by the Pharisees calls for the same remarks that have already been made regarding mint, anise (*dill*), and cummin. They were very particular in regard to outward legal observances, and even went beyond what was required; but, alas! they had not the spirit of the commandment in their hearts. They neglected weightier matters, judgment and the love of God, and they brought upon themselves the condemnation of our Lord.

Rue was anciently called Herb of Grace, and it is referred to under this name by Shakespeare,—

> "Here in this place,
> I'll set a bank of Rue, sour herb of grace."

From this we have the word *rue*, having also the meaning of repentance, which is needful to obtain God's grace. (Prior on "Popular Names of Plants.")

MINT.

(*Mentha sylvestris.*—Lin.)

"Ye pay tithe of mint, and anise, and cummin."—MATT. xxiii. 23.

THE Greek word *Heduosmon*, or *Heduosmos*, which means "having a sweet smell," occurs in two passages of the New Testament, Matthew xxiii. 23, and Luke xi. 42, and has been translated *Mint*. It corresponds with the Latin *Mentha*. The species of mint most common in Syria is that represented in the figure, and called by botanists *Mentha sylvestris*. It is often cultivated in gardens, and it is generally distributed over Europe, and reaches even to Kashmir. It is likewise found in Britain. The plant belongs to the class Didynamia, and order Gymnospermia, of the Linnean system, and to the natural order Labiatæ. It is an erect plant with opposite, nearly sessile, ovate, lanceolate, and downy leaves, which are whitish below. The spikes of flowers are dense, and have a conically-cylindrical form. Another species is also common in Palestine, and is called field-mint (*Mentha arvensis*). The species of mint have all carminative qualities. They grow usually in

damp places, and have reddish flowers arranged in spikes, or whorls.

Mint was much used as a condiment in ancient times, from its aromatic qualities, in the same way as it is employed at the present day for a sauce to lamb. Pliny mentions it as highly esteemed. It was easily propagated, and its cultivation was attended with very little expense. In Scripture it is noticed along with other sweet herbs, such as anise or dill, cummin and rue, which are commonly found in European gardens at the present day.

The giving of the tenth part to the Lord was enjoined on the Jews, and the Pharisees were very particular as to the letter, tithing even the smallest products of the garden; but they did it not in a right spirit, for they neglected the weightier matters of the law—judgment, mercy, and truth. These ought they to have done, and not to leave the others undone.

Lady Calcott, in her "Scripture Herbal" says, "I know not whether mint was originally one of the bitter herbs with which the Israelites ate the Paschal Lamb; but the use of it with roast lamb, particularly about Easter time, inclines me to suppose it was."

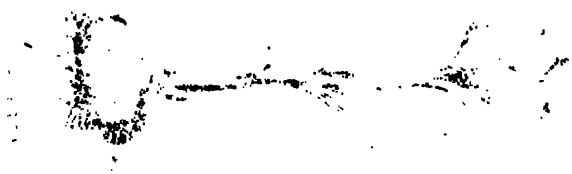
ROSE.

(*Narcissus Tazetta.*—Lin.)

"I am the Rose of Sharon, and the lily of the valleys."—SONG OF SOL. ii. 1.

THE Hebrew word *Chabazzeleth*, or *Chabatseleth*, has been translated Rose in our version of the Bible. It is met with in two passages of the sacred volume—in the Song of Solomon ii. 1, "I am the rose of Sharon, and the lily of the valleys;" and in Isaiah xxxv. 1, "The wilderness and the solitary place shall be glad for them; and the desert shall rejoice and blossom as the rose." It would appear, however, from the researches of Celsius and other learned authors, that in place of the rose, a bulbous plant is referred to, and in all probability a species of Narcissus. Royle considers the plant as probably *Narcissus Tazetta*, the Polyanthus narcissus.

This plant belongs to the class Hexandria, and order Monogynia of the Linnean system, and to the natural order Amaryllidaceæ, the Amaryllis family. Its white, fragrant flowers are pushed forth in clusters from sheathing leaves, and it has a corona or crown in the centre of the



HEMP

SAFFRON.

flower. It is found in Palestine and in Syria, and it is highly esteemed both for its beauty and fragrance. It is one of the plants which deck the meadows in spring with their blossoms. It seems to have adorned the level tract along the Mediterranean between Mount Carmel and Cæsarea, and which was known as the rich plain of Sharon. Hence the name Rose of Sharon. The fertility and richness of this plain are alluded to by Isaiah when he speaks of "the excellency of Carmel and Sharon" (Isa. xxxv. 2).

The plant is employed in Scripture to shadow forth Him "who offered Himself a sacrifice to God for a sweet-smelling savour," and to picture the blessedness of that time when the earth shall be full of the knowledge of the Lord.

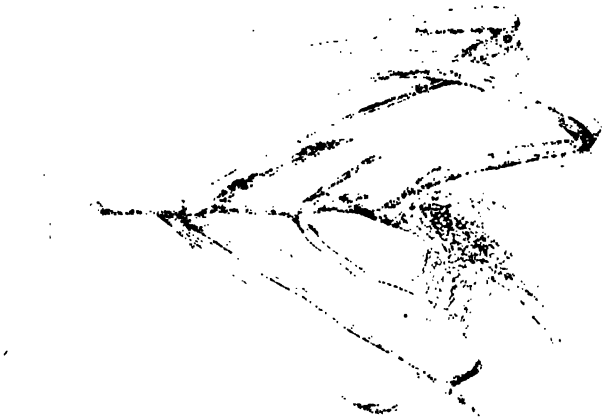
In some of the apocryphal books we meet with the word which properly means *rose*, the *rhodon* of the Greeks. Roses are highly prized in the East, and many wild species have been observed in Syria. The damask and hundred-leaved rose are cultivated extensively. What has been called the Rose of Jericho is a species of cruciform plant, *Anastatica hierochuntina*, which, after flowering, dries up into a sort of ball.

MILLET.

(*Panicum miliaceum*—Lin.)

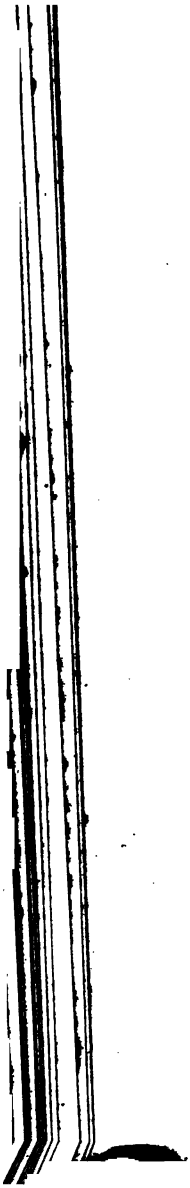
"Take thou also unto thee wheat, and barley, and beans, and lentiles, and millet."—EZEK. iv. 9.

THE Hebrew word *Dokhan*, or *Dochan*, occurs in Ezekiel iv. 9, where the Lord says to the prophet, "Take thou also unto thee wheat, and barley, and beans, and lentiles, and millet, and fitches, and put them in one vessel, and make thee bread thereof." These are all plants which are used at the present day to furnish articles of food in Eastern countries. The millet is the produce of *Panicum miliaceum*. It is the *Cenchros* of the Greeks. The grain is called *Warree* in the East Indies. It belongs to the class Triandria, and order Digynia of the Linnean system, and to the natural order Gramineæ, or Grasses. Some suppose that *Panicum italium* and *Sorghum vulgare*, the great millet or sowaree, may also be included in the Hebrew word. Both of these are grasses, which furnish materials for bread. The common millet is imported from the Mediterranean into Britain. It is sometimes grown in England to supply birds' seed. The plant has an erect stalk or culm from



MILLET.

TARES.



two to four feet high, with large leaves and a nodding cluster of fruit. In India and Persia at the present day it is extensively used for food, and it is often mixed with other grain to form bread.

There is another grain resembling millet which is imported as an article of food. It is the *Andropogon Sorghum*, Durra, or Dourra. It is said to be represented, along with other grains, on the ancient tombs of Egypt.

TARES.

(*Lolium temulentum*—Lin.)

"His enemy came and sowed tares among the wheat."—MATT. xiii. 25.

THE Greek word *Zizania* occurs in Matthew xiii. 25–30, and is translated Tares. The plant to which it refers appears to have been one which had some resemblance to wheat—at least in the blade—and hence totally unlike the plant called tares now-a-days, which is a kind of vetch. It is said, "But while men slept, his enemy came and sowed tares among the wheat, and went his way. But when the blade was sprung up, and brought forth fruit, then appeared the tares also." It is stated also that there was a difficulty in separating the one from the other, and a risk of pulling up the wheat as well as the tares in the attempt of the servants to get rid of the latter.

From a careful investigation of the matter, it has been supposed that the tare (*Zizanion*) was the plant called Darnel-grass (*Lolium temulentum*), which, while it has some resemblance to wheat, differs from it totally in quality. The darnel is a noxious grass, having narcotic

qualities to a certain extent; and hence the necessity for rooting it out. An attempt to do so, especially in the early stages of growth, might be unsuccessful, from the great similarity between it and wheat. It is only at the time of harvest, when the fruit is produced, that the two crops can be accurately distinguished. The plant is the *Ziwan* or *Zawan* of the Arabs, the *infelix lolium* of Virgil (Georg. i. 154). Bad wheat sent from the Continent often contains darnel. Darnel is found in Palestine and Syria; and the grains of it when eaten are said to produce at the present day giddiness and stupefaction. Dr. Robinson says, that among splendid fields of wheat near Kübrikhah are still found tares. They are like the wheat, and are not to be distinguished until the ear appears. The grain resembles wheat in form, but is smaller, and dark. In Beirût poultry are fed upon the grain, and it is kept for sale for that purpose. When not separated from the wheat, bread made from the flour often produces deleterious effects in persons who eat it.

Both wheat and darnel belong to the class Triandria and order Digynia of the Linnean system, and to the natural order Gramineæ, or Grasses. They are easily distinguished when in flower, by the wheat having two glumes, and its florets having their edges next the rachis or common stalk; while in the darnel there is one glume, and the florets have their backs next the rachis.

The mode of gathering the harvest in Palestine re-

sembles in some instances that mentioned in the parable. When the millet crop, for instance, is ripe, the reapers pull it up with their hands, and along with it the weeds that have grown up beside it, and then separate them.

The tares represent those false professors who are associated in this world with the wheat—that is, the true people of God. Both grow up together, and may at first seem alike, just as the wise and foolish virgins appeared to be. Man cannot distinguish accurately between the true and the false. If he were to attempt to root out the tares, he would in many instances pull up the wheat also. He would be apt to say, Lord, forbid them, for they follow not with us. The Lord alone sees the heart, and he knows those who are his. He will, at the great harvest day, separate the one from the other.

LILY—OLD TESTAMENT.

(*Nymphæa Lotus*—Lin.)

"My beloved feedeth among the lilies."—SONG OF SOLOMON ii. 16; vi. 3.

THE Hebrew word *Shushan*, or *Shoshannah*, is translated Lily in the authorized version of the Old Testament. The plant appears to be different from the *Krinon*, or lily of the New Testament. Dr. Royle and others consider the lily of the Old Testament to be *Nymphæa Lotus*, one of the water-lilies of the Nile. The plant belongs to the class Polyandria, order Monogynia of the Linnean system, and to the natural order Nymphæaceæ. It is the Lotus of the ancient Egyptians, sacred to Isis; but it is quite different from the Lotus of the Lotophagi, and from the Lotus of Homer and Dioscorides, as well as the Lotus of Hippocrates. Its flowers are large, and they are of a white colour, with streaks of pink. They supplied models for the ornaments of the pillars of the molten sea, as described in 1 Kings vii. 19, 22, 26, and 2 Chronicles iv. 5. The plant grows in still waters and slow running streams; there it produces its large, shield-like leaves, expands its blossoms, and sends

forth its fragrant odour. It is a native of Egypt, and is found in the Nile, especially near Rosetta and Damietta, and in rice-fields during the time they are under water.

In the Song of Solomon constant allusion is made to the lilies. Their beauty and their perfume are made to shadow forth the preciousness of Christ to his Church. Thus, in chapter ii., verse 1, Christ says, "I am the Rose of Sharon, and the Lily of the valleys;" again, in chapter v., verse 13, it is said of Christ by his people, "His lips like lilies dropping sweet myrrh." Hear again what Christ says of his Church: "As the lily among thorns, so is my love among the daughters" (Song of Solomon, ii. 2)—as a glorious and sweet flower beside the waters in the midst of a thorny wilderness, where all else is bleak and desolate.

This plant is one of those which is alluded to in ancient times, as giving a supply of food. The seeds were used to make bread, and the root was also eaten. Even at the present day, in Eastern countries, the roots and stalks furnish articles of diet, and the large farinaceous or mealy seeds of this and another kind of water-lily are roasted and eaten. This may, perhaps, explain the allusions made in the Song of Solomon (ii. 16, iv. 5, and vi. 3), to feeding among the lilies; or the allusion may refer to a kind of cyperus or rush, of which cattle are very fond, and which grows along with the lily in the waters. Christ leads his people here beside still waters, such as those in

LILY - OLD TESTAMENT.

Page 135

LILY - NEW TESTAMENT.

Page 138

which the lily grows, and he feeds them with the bread of life.

In Ecclesiastes xi. 1, it is said, "Cast thy bread upon the waters; for thou shalt find it after many days." This may be in allusion to the mode in which the seeds of the lily are sown. They are enveloped in clay, and cast into the water; they then sink into the mud, and after many days appear above the water, bearing flowers, and producing seeds, which are used as bread. This mode of sowing is practised now by certain tribes in India.

Hosea says, "Israel shall grow as the lily" (xiv. 5). As the water-lilies grow vigorously in the waters under the shining of the southern sun, so Israel, fed by the refreshing streams of living water, shall flourish under the shining of the Sun of Righteousness.

In the titles of Psalms xlv. and lxix., the word *Shoshannim* occurs, which has been translated Lilies. Some have thought that the word refers to the form of the musical instrument used,—resembling lilies; others remark that the imagery in these psalms is considered in part as having reference to what took place at marriages in Egypt, when the female attendants adorned their head-dresses with the water-lilies. How emphatically, then, do these emblems, taken from the lilies, bring out the meaning of the various allusions in the Song of Solomon to Christ as the Bridegroom, and his Church as the Bride!

LILY—NEW TESTAMENT.

(*Lilium chalcedonicum*—Lin.)

"Consider the lilies of the field how they grow."—MATT. vi. 28.

THE word *Krina* is translated "lilies" in the New Testament. It occurs in two passages (Matt. vi. 28, and Luke xii. 27), in which our Lord calls upon us to consider the lilies of the field. There is some difficulty in determining what the plants were. They must have been well known to our Lord's hearers as growing in the fields near the sea of Galilee, where he was discoursing. It would appear, from the report of those who have visited Palestine, that in the early spring months the fields abound in various species of lily, tulip, narcissus, and gladiolus, and it is no doubt to one of these that reference is made. Many have thought that the white lily (*Lilium candidum*) was the plant referred to; but Royle thinks that this cannot be the case, inasmuch as that plant is not considered to be a native of Palestine, although it is occasionally cultivated there. He is disposed, after careful examination, to conclude that the chalcedonian, or scarlet

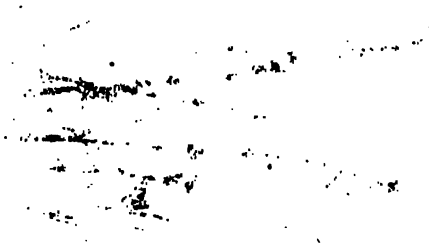
Martagon lily (*Lilium chalcedonicum*), is the lily of the field. It comes into flower at the season of the year when our Lord's sermon on the mount is supposed to have been delivered; it is abundant in the district of Galilee; and its fine scarlet flowers render it a very conspicuous and showy object, which would naturally attract the attention of his hearers.

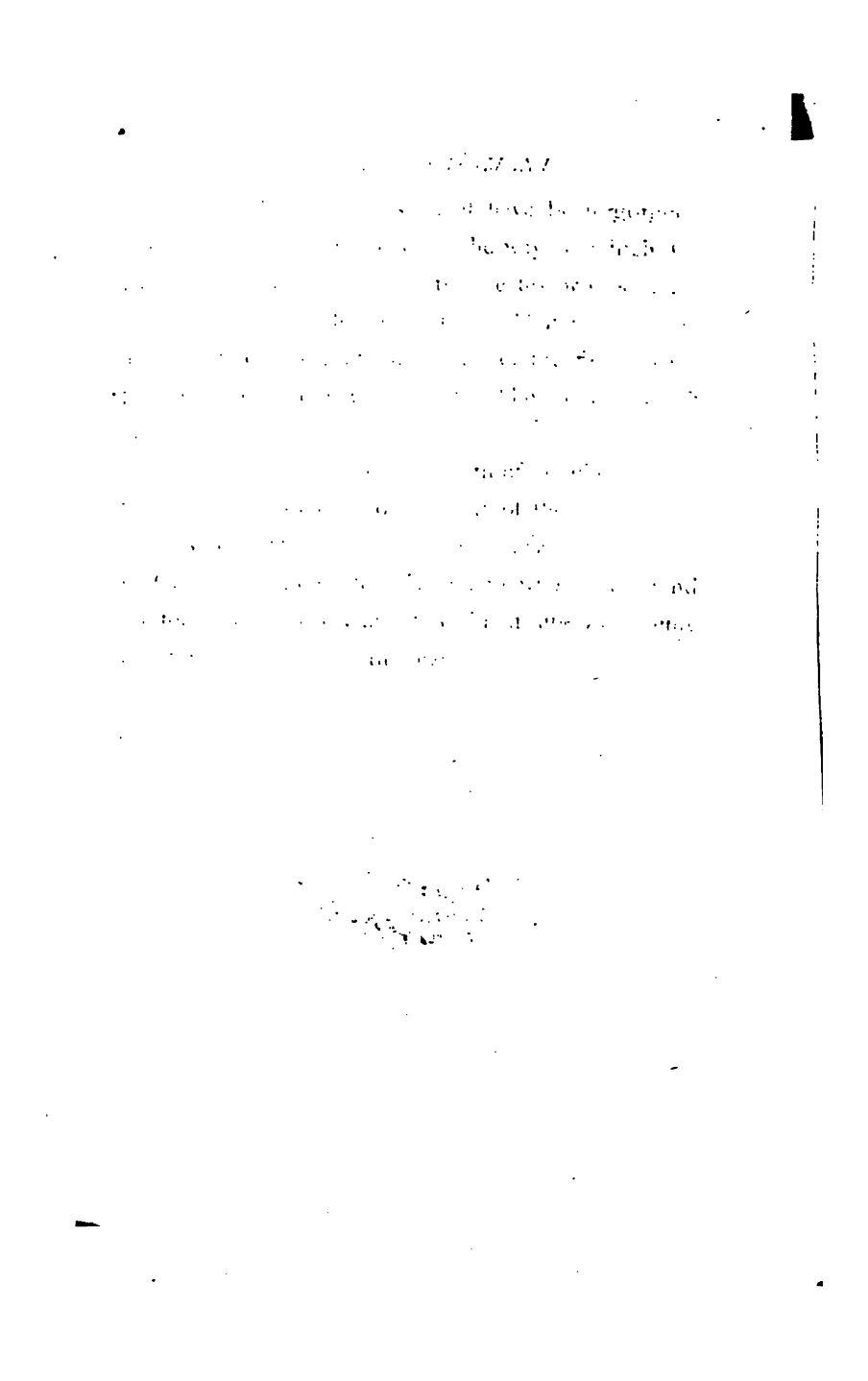
The plant belongs to the class Hexandria, and order Monogynia of the Linnean system, and to the natural order Liliaceæ. The six parts of the perianth are of a scarlet colour, and are turned back. Dr. Thomson describes a plant in Palestine, called Hûleh lily, which delights much in the valleys, but is also found in the mountains. It abounds in the woods north of Tabor.

We are told that Solomon in all his glory was not arrayed like one of these lilies (Matt. vi. 29, Luke xii. 27). In order to understand this, let us look at the beautiful structure in which the colours of the flower reside. The flower-leaves of the lily, when magnified by the microscope, are seen to consist of a number of beautiful honeycomb-like cells, in which the colouring matter is formed and stored. It is of an elegant texture, far exceeding in beauty anything that man could make. Solomon's robes, if examined by means of a magnifying glass, would, so far as they were the work of man, have appeared coarse; but the more the clothing of the lily is magnified, the more exquisite is its beauty. The

colours of Solomon's robes might have been gorgeous, but they were not disposed in the way in which God paints the flowers. What are the greatest works of men when compared with those of the Almighty Creator? The green covering of the "grass of the field," which probably means the foliage of the lilies, defies all the art of man to imitate.

How wondrous is the quiet growth of the lilies. There is no toiling or spinning on the part of the plant. The process of growth is carried on by an unseen power, even by God, who waters the ground, and who superintends the formation of every minute cell and tube which enter into the composition of the plant.





MELON.

NETTLE.

MELON.

(*Cucumis Melo.*—Lin.)

"We remember . . . . the cucumbers and the melons."—NUM. xi. 5.

THE Hebrew plural word *Abbatichim*, or *Abbatichîn*, occurs only once in the Bible, and has been translated Melons. It is the *Pepones* of the Greek and Latin. The Septuagint has the word *Sieyos*, a term which is now-a-days given to a genus allied to the cucumber. The plant referred to is the *Cucumis Melo* of botanists, the common melon, and perhaps also *Cucurbita Citrullus* (*Cucumis Citrullus* of Linnæus), the water-melon. These plants belong to the classes Dicœcia and Monœcia, and the orders Polyadelphia and Monadelphia of the Linnean system, and to the natural order Cucurbitaceæ, the cucumber family, which includes sixty-six known genera, and about three hundred and thirty species. The plants of this family are herbs with succulent stems, climbing by means of lateral tendrils which are transformed stipules; their leaves are palmate and rough; their flowers generally unisexual; their stamens five, adhering to the calyx; and

their fruit formed by three carpels, constituting what has been called a pepo. The plants are generally acrid in their qualities, although many of them, especially under cultivation, yield edible fruit, such as the cucumber, melon, gourd, pumpkin, squash, and vegetable marrow. Colocynth and elaterium, which are powerful purgatives. also belong to this order. (See article on WILD GOURD). The plants are natives of warm climates chiefly, and abound in India. In these countries their edible fruits are highly prized, and hence the words in which the children of Israel alluded to them when they murmured in the desert: "We remember the fish which we did eat in Egypt freely; the cucumbers and the melons," &c. (Num. xi. 5).

Dr. Royle thinks that the common melon is the plant alluded to, and he grounds his opinion in part on the resemblance between the Arabic word for melon, *butikh*, and the Hebrew word. Moreover, he thinks that there is no evidence of the water melon having been known to the ancient Egyptians. In Arabic the water melon is called *butikh-hindee*, or Indian melon.

The melon was introduced into Britain about 1520. There are a great number of varieties now in cultivation. The best kinds are included under the name Cantaloupe, an appellation, according to Don, bestowed on them from a seat of the pope near Rome, where this variety is supposed to have been originally produced.

NETTLE.

(*Urtica urens*—Lin.)

"It was all grown over with thorns, and nettles had covered the face thereof."
—PROV. xxiv. 31.

THE Hebrew words *Charul*, *Kimosh*, and *Kimshon*, occur in several places in the Old Testament, and have been translated "nettles." There are some doubts as to the correctness of the translation. *Charul* is found in three passages. In Prov. xxiv. 30, 31, it is written: "I went by the field of the slothful, and by the vineyard of the man void of understanding; and, lo, it was all grown over with thorns, and nettles had covered the face thereof." Job says, when speaking of the children of the destitute: "Among the bushes they brayed; under the nettles they were gathered together" (Job xxx. 7); and the prophet Zephaniah, in speaking of the desolation coming on Moab and Ammon, predicts thus: "Surely Moab shall be as Sodom, and the children of Ammon as Gomorrah, even the breeding of nettles, and salt-pits, and a perpetual desolation" (Zeph. ii. 9). The plant referred to is obviously one which grows as a weed in gardens, and

comes up in desolate places where men have had their habitation. This is very characteristic of the nettle, which follows man's footsteps in all parts of the world—Europe, Asia, and America. In wild and deserted glens, the sites of cottages are often marked by nettles; and the ruins of old castles give rise to a large crop of these weeds. Some have supposed that a thorny or spiny shrub was meant. Royle is disposed to think, from the resemblance between *charul* and the Arabic *khardul* that a kind of mustard was referred to, and he has figured *Sinapis orientalis* as the probable species. But this plant does not answer well to the description, seeing it is not a weed of gardens, nor a product specially of ruins. There is much conjecture on this matter. The correspondence between the word in Hebrew and Arabic no doubt adds plausibility to Royle's conjecture, and our own word Charlock is applied also to a kind of mustard. Some of the species of Sinapis grow to a great height.

Again, the Hebrew words *kimosh* and *kimshon*, or *kimmashon*, translated nettle, occur in two places: in Isaiah xxxiv. 13, it is said, "And thorns shall come up in her palaces, nettles and brambles in the fortresses thereof;" Hosea says, "The pleasant places for their silver, nettles shall possess them: thorns shall be in their tabernacles" (ix. 6); and in Proverbs the garden of the sluggard is described as covered with *kimshonim*, translated *thorns*, and in some versions *thistles* (xxiv. 31).

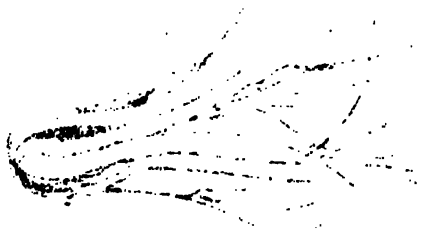
Nettles belong to the genus Urtica. There are two common species which are found generally distributed over the globe, *Urtica dioica*, the great nettle, and *Urtica urens*, the small nettle. *Urtica pilulifera*, the Roman nettle, also occurs in many places. These belong to the classes Monœcia and Diœcia, order Tetrandria of the Linnean system, and to the natural order Urticaceæ. They have inconspicuous green flowers without a corolla, their stamens are often elastic, their fruit is a single-seeded nut, and they are covered with stinging hairs. In Scripture nettles are made to point out the effect of sloth and idleness, and they indicate the passing nature of all human greatness as regards earthly habitations. They are constantly mentioned as marks of waste and desolation.

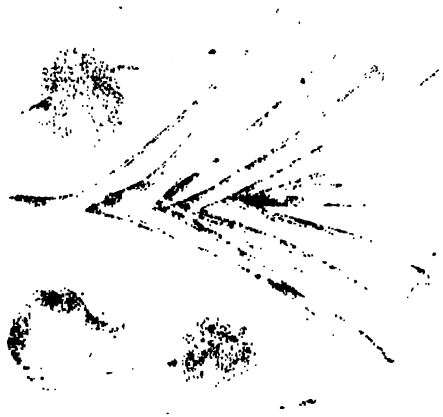
GARLIC.

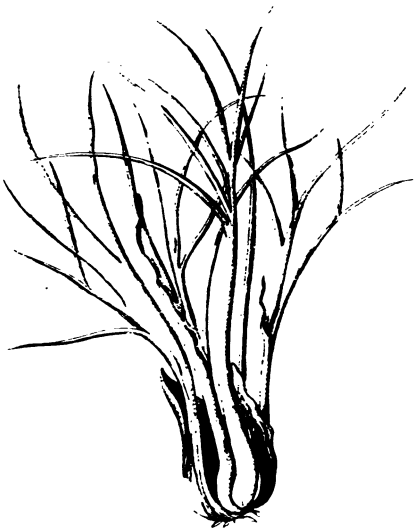
(*Allium sativum*—Lin.)

"We remember . . . . the leeks, and the onions, and the garlic."—NUM. xi. 5.

THE Hebrew plural word *Shumim* occurs only once in the Old Testament, and is translated garlic. It is the *skordon* of the Greeks. It was one of the vegetable luxuries of Egypt after which the Israelites lusted in the desert, and thus provoked God to anger by their murmurings. An allied Arabic word is at the present day used for garlic. The plant is the *Allium sativum*, belonging to the class Hexandria, order Monogynia of the Linnean system, and to the natural order Liliaceæ, the Lily family. It was much cultivated in Egypt, and is noticed by Herodotus as having been used in part for the food of the labourers engaged in building the pyramids. Royle thinks it probable that the Shallot, *Allium ascalonicum*, might be the species referred to, and not the common garlic. The shallot, or eschalot, is common in eastern countries, and derives the name ascalonicum from having been brought into Europe from Askalon in Palestine.







GARLIC

ONION.

LEEK.

(*Allium Porrum.*—Lin.)

"We remember . . . the cucumbers, and the melons, and the leeks."—NUM. xi. 5.

THE Hebrew word *Chatzir*, *Chazir* or *Chajir*, occurs frequently in the Old Testament, and has been translated Leeks in Numbers xi. 5, where the Israelites are represented as sighing for the good things of Egypt, such as the cucumber, the melon, and the leeks. The word, however, is rendered differently in other places. Thus, 1 Kings xviii. 5, 2 Kings xix. 26, Job xl. 15, Ps. xxxvii. 2, xc. 5, ciii. 15, civ. 14, cxxix. 6, cxlvii. 8, Isa. xxxvii. 27, xl. 6, 7, 8, xliv. 4, li. 12, it is translated *grass;* in Job. viii. 12, it is rendered *herb;* in Prov. xxvii. 25, and Isa. xv. 6, it is by mistake translated *hay;* and in Isa. xxxiv. 13, it is rendered *court.* The word is derived from a root which means "to be green," and hence it is considered as referring to a green vegetable like grass; and it is probable that the word *court* in Isaiah may have reference to a sort of pasture court. The most ancient Greek translators use the word *Prasa* or Leeks to represent the Hebrew term *Chatzir;* and it

seems likely that in Numbers, from its association with onions, leeks might be intended, more especially as these vegetables were commonly used at that time in Egypt.

The plant which supplies the leek is the *Allium Porrum* of botanists. It belongs to the class Hexandria, order Monogynia of the Linnean system, and to the natural order Liliaceæ, the Lily family. It has grass-like leaves, and its flowers occur in rounded heads. The plant was used as a seasoning to soups in the time of the Romans. It is indigenous in the countries bordering on the Mediterranean. In Egypt it thrives well, and the inhabitants eat their leek and barley bread with avidity. It was introduced into Britain in 1562. The leek was sacred in Egypt, and some have suggested that it was not likely the Israelites would be permitted to eat it there. Lady Callcott says that these plants have never been objects of general worship,—"They were for the most part reverenced on account of their being dedicated to, or symbolic of, some well-known deity, much in the way in which a Welchman reverences his leek, the emblem of Wales, and wears it on St. David's Day. That compliment paid, however, he would never think of denying himself the pleasure of eating his leek, and no doubt the ancient Egyptians and their bondsmen made equally free with their savoury gods."

ONION.

(*Allium Cepa.*—Lin.)

"We remember . . . . the cucumbers, and the melons, and the leeks, and the onions."—NUM. xi. 5.

THE Hebrew plural word *Betzalim* occurs in Numbers xi. 5, and has been translated Onions. There seems to be no doubt of the correctness of the rendering. The Arabic word is *basl* or *bassal*, which is nearly allied to the Hebrew *Betzal*, and it has been rendered by the Greek word *Krommyon*, applied to the onion. The plant is the *Allium Cepa* belonging to the class Hexandria, order Monogynia of the Linnean system, and to the natural order Liliaceæ, the Lily family. It is a bulbous plant, having its bulbs covered with brown scales; its leaves are tubular or hollow, and its flowers are produced in rounded clusters. It has stimulant, acrid, and pungent qualities, and has been long cultivated in the south of Europe and in the north of Asia. The Egyptians had a superstitious veneration for onions. When onions become very large, as in Portugal, they lose much of their acrid qualities and become bland articles of food when cooked. Hasselquist says:

"Whoever has tasted onions in Egypt must allow that none can be had better in any part of the universe." While the superstitious inhabitants of Egypt reverenced these productions of the soil, the children of Israel lusted after them in the desert, and murmured against the Lord who had delivered them, and who could supply all their need.

WHEAT.

(*Triticum sativum*—Lin. var. *compositum*.)

"A land of wheat and barley."—DEUT. viii. 8.

THE Hebrew word *Chittah* occurs in many places of the Old Testament, and has been properly translated *Wheat*. There is also another word, *Kemach*, which means *flour of wheat*, and which is translated in Genesis xviii. 6, *fine meal*. The first distinct notice of wheat in the Bible, is in Genesis xxx. 14, where an allusion is made to wheat-harvest. Wheat is a common grain in Syria, Egypt, and other southern countries, and is considered as having had an Asiatic origin. It is not known in a wild state. Palestine is spoken of as a land of wheat (Deut. viii. 8), and as producing abundantly corn, wine, and oil (Deut. vii. 13, &c.); and the purest wheat or wheat-flour is noticed under the name of *the fat of wheat* (Ps. lxxxi. 16, and cxlvii. 14, marginal readings), and the kidney-fat, or the fat of the kidneys, of wheat (Deut. xxxii. 14).

Solomon's provision for one day was thirty measures or cors (probably about a thousand pecks), of fine flour,

and threescore measures, or cors, of meal (1 Kings iv. 22). In 1 Kings v. 11, it is mentioned that Solomon gave Hiram twenty thousand measures of wheat for food to his household, year by year; and in 2 Chronicles ii. 10, it is stated that a similar amount of beaten wheat was given to Hiram's servants who were employed to cut timber on Mount Lebanon. Wheat from Minnith, a place situated in the domain of the king of Ammon, was famous, and is referred to by Ezekiel as being brought by the Jews to Tyre (Ezek. xxvii. 17). When King Jothan overcame the Ammonites he received from them, as part of the tribute, ten thousand measures of wheat. In the Bible the words corn and parched or roasted corn, are frequently used. In many passages they seem to refer to bread corn, that is, wheat.

The common wheat is *Triticum vulgare*, the variety called *Triticum æstivum*, or spring wheat, being sown in spring, and that called *Triticum hybernum*, winter wheat, being sown in autumn. The plant belongs to the class Triandria, order Digynia of the Linnean system, and to the natural order Gramineæ, or the Grass family. There are numerous varieties of wheat in cultivation. In Pharaoh's dream the seven ears on one stalk appear to refer to the variety of wheat commonly cultivated in Egypt, and called *Triticum compositum*. A representation of this many-eared Egyptian wheat is given in the drawing. This branching variety of wheat helps to ex-

WHEAT, BARLEY & SPELT.

Page 15.

BULRUSH.

Page 165.

plain the allusion in Genesis xli. 5–7, 22–24, and 27. Grains of wheat are found in mummy cases in Egypt, but there is no evidence that any of those *put in along with the mummy* have retained their vitality. Grains taken from the cases have no doubt germinated, and in Britain there are many fields of what is called mummy-wheat, but in all instances the grains have been tampered with by guides who have an interest in deceiving travellers. Among some of the so-called mummy-wheat grains of Indian corn have actually been found. In no case have any of these mummy-grains produced the *Triticum compositum.*

Reference is made in Leviticus ii. 14 and xxiii. 14, to green ears of corn cut before they are ripe and dried by the fire. It is said that in Lower Egypt, at the present day, such green ears are used as food. Parched or roasted corn is frequently eaten in eastern countries. When the children of Israel entered Canaan, they ate parched corn (Joshua v. 11). This was one of the articles of food brought to David in the camp at Mahanaim (2 Sam. xvii. 28); and it was given to Ruth by Boaz, when she sat beside the reapers at their meal (Ruth ii. 14).

Corn is often referred to in the New Testament, and under this name *wheat* was no doubt included, as well as other kinds of grain, such as barley and spelt. From the sowing, the sprouting, and the reaping of corn, many important illustrations are drawn by our blessed Saviour

and his apostles (Matt. xiii. 3–23; Mark iv. 3–20; John xii. 24). St. Paul employs the sprouting of grain to illustrate the believer's resurrection body * (1 Cor. xv. 36–44). Shibboleth, the name which was put as a test to the Ephraimites (Judges xii. 6), is the Hebrew name for an ear of corn.

Parched corn, under the name of *Kali*, is referred to in several passages of Scripture as Lev. xxiii. 14; Ruth ii. 14; 1 Sam. xvii. 17; xxv. 18. Some have supposed the Kali referred to the produce of the chick-pea, *Cicer arietinum*. Dr. Thomson says that at the present day parched corn is used during harvest. "It is made thus: a quantity of the best ears, not too ripe, are plucked with the stalks attached; these are tied into small parcels, a blazing fire is kindled with dry grass and thorn bushes, and the corn heads are held in it until the chaff is mostly burned off. The grain is thus sufficiently roasted to be eaten, and it is a favourite article all over the country. After it has been roasted, it is rubbed out in the hand and eaten as there is occasion." ("Land and Book," p. 648.) The green ears of corn are also constantly plucked and rubbed in the hands (Matt. xii. 1, 2; Mark ii. 23; Luke vi. 1, 2); and the taking of them is not considered an act of stealing.

* See Balfour's "Botany and Religion," 3rd Edition, p. 51, *et seq.*

SPELT.

TRANSLATED RYE.

(*Triticum Spelta*, Lin.)

"The appointed barley and the rye [spelt] in their place."—ISA. xxviii. 25.

A KIND of wheat called *Spelt* (*Triticum Spelta* of botanists) seems to be referred to under the Hebrew name of *Kussemeth*, which has been translated Rye in Exodus ix. 32, Isaiah xxviii. 25, and Fitches in Ezekiel iv. 9. Rye is a grain of cold climates, and is not cultivated in the southern parts of Europe. *Kussemeth* was undoubtedly one of the cultivated crops of Egypt and Syria, and was used as an article of food. It appears to have been sown at the same time as wheat, and is referred to in the seventh plague of Egypt as not having been smitten; because, like the wheat, it was not grown up. Ezekiel mentions it as being used in making bread. Some have supposed that the spelt was sown as a border round other kinds of grain, and that allusion is made to this in Isaiah xxviii. 25 (marginal reading). Spelt is a bearded kind of wheat, and in this respect has a resemblance to rye. The names *Olyra* and *Zea* were

given to it by some Greek authors. It is cultivated in the south of Germany. The plant belongs to the class Triandria, order Monogynia of the Linnean system, and to the natural order Gramineæ, the Grass family.

BARLEY.

(*Hordeum distichon*— Lin.)

"A land of wheat and barley."—DEUT. viii. 8.

BARLEY is another kind of grain mentioned both in the Old and in the New Testament. It is referred to under the Hebrew name of *Seorah* or *Shorch*, and under the Greek name of *Krithe*. It is the *Hordeum distichon* of botanists, and belongs to the class Triandria, order Digynia of the Linnean system, and to the natural order Gramineæ, the Grass family. It is mentioned along with common and spelt wheat. Oats and rye, being northern plants, did not grow in Palestine. The two-rowed barley is that which is most commonly cultivated. *Hordeum vulgare*, Bere, Bigg or four-rowed barley, and *Hordeum hexastichon*, six-rowed barley, are confined to higher districts, and are not commonly cultivated in Britain. The Bere, however, finds a place in the present fiars of upwards of twenty counties in Scotland. Barley is one of the most ancient articles of diet. It is often noticed along with wheat, as occurring in Palestine, and as having been used for food (Deut. viii. 8;

2 Chron. ii. 10, 15; xxvii. 5). Barley was grown by the Egyptians and the Jews, and was used for making bread and cakes. It was mixed also with wheat, lentiles, and millet. In 1 Kings iv. 28, barley is mentioned as having been used as food for Solomon's horses. Barley-meal was employed in certain instances as an offering (Num. v. 15). Barley-bread served as food for the common people; and the loaves which were miraculously distributed to the multitude by our Lord were made of barley (John vi. 9, 13). The friends of David brought barley to him when he fled from Absalom (2 Sam. xvii. 28). Barley harvest is mentioned in Ruth i. 22; ii. 23; and 2 Samuel xxi. 9, 10. This takes place in Palestine about the end of March or the beginning of April. The barley ripens in Egypt about a month before the wheat; and hence it was destroyed by the hailstones, while the wheat escaped (Exod. ix. 31). Boaz measured six measures of barley, and put it into Ruth's veil (Ruth iii. 15). This veil was consequently made of stronger material than veils in this country.

Barley bread was not much esteemed by the Jews. Ezekiel says (xiii. 19), "Will ye pollute me among my people for handfuls of barley?"—probably referring to its small value. In Gideon's dream a cake of barley bread is observed to tumble into the host of Midian, and smite it; and the man's fellow says, This is the sword of Gideon. In speaking of the analogy between the cake and the

sword of Gideon, Dr. Thomson says, "As to the line of connection in the mind of the 'interpreter,' we may remember that barley bread is only eaten by the poor and the unfortunate. Nothing is more common than for these people, at this day, to complain that their oppressors have left them nothing but barley bread to eat. This cake of barley bread was therefore naturally supposed to belong to the oppressed Israelites; it came down from the mountain where Gideon was known to be; it overthrew the tent so that it lay along, foreshadowing destruction from some quarter or other. It was a contemptible antagonist, and yet scarcely more so than Gideon in the eyes of the proud Midianites. That the interpreter should hit upon the explanation given is not, therefore, very wonderful; and if the Midianites were accustomed, in their extemporaneous songs, to call Gideon and his band 'eaters of barley bread,' as their successors, these haughty Bedawîn, often do to ridicule their enemies, the application would be all the more natural."—*Land and Book*, p. 449. The low estimation in which barley was held may be in some way implied in its use in the jealousy-offering (Num. v. 15).

GOURD.

(*Ricinus communis*—Lin.)

"The Lord God prepared a gourd, and made it come up over Jonah."—JONAH iv. 6.

THE Hebrew word *Kikayon*, translated Gourd, occurs in the fourth chapter of the Book of Jonah, verses 6, 7, 9, and 10. It appears to be the *Kiki* of the Greeks, which is described as a plant having leaves like a palm-tree, and seeds, which yield oil, contained in a rough seed-vessel. In character and properties the plant corresponds with the castor-oil plant, the *Ricinus communis* of botanists. The marginal reading gives *Palm-crist*, which seems to be a corruption of *Palma Christi*, another name for the castor-oil plant. It belongs to the class Monœcia, order Monadelphia of the Linnean system, and to the natural order Euphorbiaceæ, the Spurge family. It is a native of Southern Europe, Palestine, and India. In Europe generally it is cultivated in our greenhouses as an herb, and does not attain a large size; but in India and other warm climates it becomes arborescent, so as to afford a shelter from the sun's rays. The stem of the plant is usually soft, and

is easily destroyed by insects or worms. In China a peculiar fungus called *Exidia auricula*, used in soups, grows on the decaying stems of Ricinus. The seeds of the plant, when bruised, yield the oil called castor-oil. The name of *Kik-oil* is also applied to it. It is said that the modern Jews in London use this oil for their sabbath lamps.

Many have been the disputes as to Jonah's gourd, and it is impossible to decide the point with certainty. The castor-oil plant seems, upon the whole, to fulfil the conditions required; and the cognate word in Greek helps to decide the matter in some measure. The gourd was prepared by the Lord miraculously for Jonah, in order that its broad leaves might be a shadow over his head, to protect him from the heat; and the prophet, we are told, was exceeding glad of the gourd (Jonah iv. 6). It was a temporal blessing provided for him; but, alas! like all creature comforts, it was fleeting. By the time the sun rose next morning, a worm, by God's command, smote the gourd that it withered. The destruction of the gourd, and the removal of the shade, made Jonah angry, and he wished in himself to die, and said, "It is better for me to die than to live" (Jonah iv. 8). He grumbled at the orderings of God's providence, and his proud heart rose against God's dispensations. The lesson which God conveyed to Jonah is thus expressed: "Then said the Lord, Thou hast had pity on the gourd, for the which

thou hast not laboured, neither madest it grow; which came up in a night, and perished in a night: and should not I spare Nineveh, that great city, wherein are more than sixscore thousand persons that cannot discern between their right hand and their left hand; and also much cattle?" (Jonah iv. 10, 11.)

CUCUMBER.

(*Cucumis sativus*—Lin.)

"We remember . . . . . the cucumbers and the melons."—NUM. xi. 5.

THE Greek word *Kishuim* occurs twice in the Old Testament, and has been translated Cucumbers. The singular of the word is *Kisha*, which resembles the Arabic *Kissa*, the name for Cucumber. In Greek the name is *Sicyos*. It is the *Cucumis sativus*, and belongs to the class Monœcea, order Polyadelphia of the Linnean system, and to the natural order Cucurbitaceæ, the Cucumber and Gourd family. It is called *Ketimou* and *Timou* by the Hindus. It is a native of Eastern countries, and was introduced into Britain in 1573. It is a trailing and climbing plant, with large rough leaves, having tendrils. The plant was known in very early times, and it was cultivated extensively in Egypt. Hence the allusion made by the children of Israel, as recorded in Numbers xi. 5. They longed for the cucumbers of Egypt. There are a great number of varieties in cultivation. A species called *Cucumis Chate* grows near Cairo after the inundation of

the Nile, and is said to yield a delicious fruit highly esteemed in Egypt. This was probably used along with the common cucumber, and is included in the Hebrew word. Egypt may still be called a land of cucumbers. The guarding of vineyards and cucumber beds is referred to by the prophet Isaiah when he compares the desolation of Israel: "The daughter of Zion is left as a cottage in a vineyard, as a lodge in a garden of cucumbers" (Isa. i. 8). Lady Callcott remarks, "This statement of the prophet is constantly recalled to the memory of the modern traveller in Egypt by the vast plantations of cucumbers on the banks of the Nile. There, as of old, the peasant has his lodge, that he may water his rich plants with the *shadoof*, or, as the Scripture expresses it, 'by the foot' (Deut. xi. 10); and that he may guard his little property from the robbers of the Nile, who, though of a different class, are not less formidable to the cultivators than those of the time of Herodotus." The young green fruit of the cucumber is preserved as a pickle, under the name of *Gherkins*, which is a corruption of the German word *Gurke*, meaning cucumber.

BULRUSH.

(*Papyrus antiquorum.*—Willd.)

"Can the rush [bulrush] grow up without mire."—Job viii. 11.

THE Hebrew words *Gome* and *Agmon* occur in several passages in the Old Testament, and have been translated *bulrush*, and *rush*, and *flag*. The word *gome* means originally to soak or drink up, and it is therefore given to a plant growing in watery and marshy places. In Isaiah xxxv. 7, it is noticed as a plant of wet places. It is supposed to be *Papyrus antiquorum*, which grew in large quantity in Egypt among the mud of the Nile. The plant has entangled spreading roots and underground stems which cause the mud to accumulate, and by forming a more or less solid clay seems to drink up the water in which it grows. The plant appears to have contributed in no small degree to form the Delta of the Nile, and in so doing it has become eradicated from want of wet mud in which to grow. In Job viii. 11, it is said, "Can the rush grow without mire."

The plant belongs to the class Triandria, and order

Monogynia, of the Linnean system, and to the natural order Cyperaceæ, or the Sedge family.

The Papyrus was used in Egypt for forming light sorts of boats; and hence, in Isaiah xviii. 2, "vessels of bulrushes upon the waters" are mentioned. Jochebed, the mother of Moses, constructed an ark, or little covered boat, of bulrushes, and in this the babe floated on the water of the river (Exod. ii. 3). Boats are at the present day constructed of various kind of allied plants. Balsas in South America are formed of the stalks of *Scirpus lacustris*. The name paper is derived from the Papyrus, which was anciently used in its manufacture. The paper was made by splitting up the stalks of the plant into thin slices of cellular tissue, and then cementing them together. The structure of the paper is the same as rice paper. In Sicily, at the present day, there is a course paper made from the Papyrus.

The word *agmon* occurs in Isaiah ix. 14 and xix. 15, where it is translated *rush;* in Isaiah lviii. 5, where it is called *bulrush;* and in Job xli. 2, under the name *hook*. This last, according to some commentators, should be translated, "Canst thou tie up his mouth with a *rush-rope*." It seems to have been a kind of reed, but it is not easy to pronounce upon the species. Some consider it is similar to *Kaneh*, translated *reed*, and look upon it as a species of *Arundo* like the common reed, or the variety of *Arundo Donax* called *Ægyptiaca*.

Royle says that "various species of reeds (*arundo*) will suit the different passages in which this word *agmon* occurs; but several species of *saccharum*, growing to a great size in moist situations, and reed-like in appearance, will also fulfil all the conditions required, as affording shelter for the behemoth or hippopotamus, being convertible into ropes, forming a contrast with their hollow stems to the solidity and strength of the branches of trees, and when dry easily set on fire, and when in flower their light and feathery inflorescence may be bent down by the slightest wind that blows." (See REED.)

SPIKENARD.

(*Nardostachys Jatamansi.*—Dec.)

"My spikenard sendeth forth the smell thereof."—SONG OF SOLOMON i. 12.

THE Hebrew word *Nerd* or *Nard*, and the Greek *Nardos*, have been translated in our version of the Bible *Spikenard*. From the references made in Scripture it is clear that the plant was one famous for its perfume. In the Song of Solomon i. 12, it is said, "While the King sitteth at his table, my spikenard sendeth forth the smell thereof;" and in iv. 13, 14, the plant is mentioned as cultivated in gardens along with "trees of frankincense, myrrh, and aloes, with all the chief spices." Many of these are known to have been the products of Arabia and far eastern countries, and to have been brought to Palestine, especially in the days of Solomon. In Mark xiv. 3, spikenard is referred to both as regards its perfume and its value. While Jesus sat at meat, "there came a woman having an alabaster box of ointment of spikenard, very precious, and she brake the box, and poured it on his head." In John xii. 3 the same occurrence is alluded to: "Then

took Mary a pound of ointment of spikenard, very costly, and anointed the feet of Jesus, and wiped His feet with her hair, and the house was filled with the odour of the ointment." The value of the ointment is referred to by Judas Iscariot, who said that it might have been "sold for three hundred pence [denarii] and given to the poor" (John xii. 5) Rosenmüller says this sum was about fifty rix-dollars. All these passages point to the delightful perfume and the rarity and costliness of spikenard. The term *nard* is said to be derived from the Tamul, in which words beginning with *nar* convey the notion of an agreeable perfume. The ointment prepared from the oil of spikenard-root was considered by the Romans as precious. Horace promises to Virgil a whole cadus (about thirty-six quart bottles) of wine for a small onyx-box full of spikenard,—

> "Nardo vina merebere,
> Nardi parvus onyx eliciet cadum."
> HOR., *Carm.* iv., *Ode* 12.

On the occasion of banquets the Romans crowned their guest with flowers such as roses, and anointed him with spikenard,—

> "et rosa,
> Canos odorati capillos,
> Dum licet, Assyriaque nardo
> Potamus uncti."
> HOR., *Carm.* ii., *Ode* 11.

Sir William Jones, in the "Asiatic Researches," states that he considers the spikenard like the produce of a

plant called in Bengal *Jatamansi*, the stem of which, covered with fibrous matter, is dug up in the young state, dried, and sold in the bazaars. In this state it resembles the tail of an ermine, or small weasel. The plant has also, from its form, been called by the Arabs *Sunbul hindae*, or Indian ear.

The plant has been specially examined by Dr. Royle. It is the *Nardostachys Jatamansi* of Decandolle. It belongs to the class Triandria, order Monogynia, of the Linnean system, and to the natural order Valerianaceæ, the Valerian family. The general name is derived from Greek words meaning *nard* and *spike*, and the specific name is from the Indian appellation. This Indian plant seems to have been imported from the Himalayas in the days of Solomon, and to have been prized as a rare kind of perfume. Our Lord smelled a sweet savour when Mary anointed him, and he commended her dutiful faith when he said, in reply to the covetous and hypocritical Judas, "Let her alone; why trouble ye her? she hath wrought a good work on me. She hath done what she could: she is come aforehand to anoint my body to the burying. Verily I say unto you, Wheresoever this gospel shall be preached throughout the whole world, this also that she hath done shall of spoken of for a memorial of her" (Mark xiv. 6, 8, 9).

COTTON.

(*Gossypium herbaceum* Lin.)

"Where were white, green [cotton], and blue hangings."—ESTHER i. 6.

THE word cotton does not occur in our translation of the Bible; but there is a Hebrew word, *Karpas*, in Esther i. 6, which has been translated *green*, and which according to many commentators means cotton. The passage in Esther describing the hangings of the palace of Ahasuerus, called Shushan or Lily, should, according to these commentators, be rendered thus: "Hangings of white cotton and blue, fastened with cords of fine flax and purple to rings of silver and pillars of marble." The scene of Esther's history was a country where cotton has been constantly used to supply articles of clothing; and this tends to strengthen the opinion that Cotton was referred to in the passage which has been quoted. The Hebrew word *Karpas* is very like the Sanskrit *Karpasum* and *Karpasa*, signifying the cotton plant; and it resembles the Latin *Carbasus*, which also means Cotton. Royle remarks that the hangings thus described in Esther are exactly like those used in

India; for "hanging curtains made with calico, usually in stripes of different colours, are employed throughout India as a substitute for doors." The Indian name of Cotton might easily reach the Persian court of Susa in the time of Ahasuerus, whose dominion extended to India. As the communication between India and Egypt was great, it is probable that Cotton was introduced into the latter country. The Jews, in all probability, brought Cotton with them on their return from Babylon.

Some authors have supposed that the Hebrew words *Shesh*, *Bad*, *Butz*, and the Greek *Byssus*, which occur in the Bible, and which are translated linen and fine linen, may refer to Cotton. These views, however, do not appear to have been confirmed by the best commentators.

The common herbaceous Cotton is the *Gossypium herbaceum* of botanists. It belongs to the class Monadelphia, order Polyandria of the Linnean system, and to the natural order Malvaceæ, the mallow family. The plant has five lobed leaves, and yellow petals, with a purple spot on each claw. It is found in India, and it also occurs in the south of Europe. There are other species of cotton cultivated in various parts of the world, especially in America.

The substance called Cotton consists of the hairs which surround the seeds in the capsule or seed-vessel, and which are the means of scattering the seed when the

capsule opens. While God thus wisely provides for the dispersion of the cotton seed, he has also graciously prepared for man materials of a most valuable kind for his clothing and comfort. The history of Cotton, its preparation, and manufacture, is a subject of deep interest, and is connected with the commercial history of nations. Royle remarks that "Cotton has from the earliest ages been characteristic of India. Indeed, it has been well remarked, that as from early times sheep wool has been principally employed for clothing in Palestine and Syria, in Asia Minor, Greece, Italy, and Spain, hemp in the northern countries of Europe, and flax in Egypt, so cotton has always been employed for the same purpose in India, and silk in China. In the present day, cotton, by the aid of machinery, has been manufactured in this country on so extensive a scale, and sold at so cheap a rate, as to have driven the manufacture of India almost entirely out of the market. But still, until a very recent period, the calicoes and chintzes of India formed very extensive articles of commerce from that country to Europe." The troubles in America have caused greater attention to be paid to the cultivation of cotton in India, and we may expect that Britain will soon be able to rear all the cotton she requires for her manufacture, and thus be independent of supplies from America.

REED.

(*Arundo Donax*—Lin.)

The reeds and flags shall wither."—ISAIAH xix. 6.

THE Hebrew word *Kaneh* and the Greek *Kalamos* have been translated *Reed* in the Bible. The word *canna* in Greek and Latin, and *cane* in English, may probably be traced to the Hebrew word *Kaneh*. In the Old Testament the word *Kaneh* is generally applied to reeds growing in water, the hollow stems of which are easily broken. Thus in Isaiah xix. 6 it is said, "And they shall turn the rivers far away, and the reeds and flags shall wither." In Isaiah xxxv. 7, reeds and rushes are associated as growing in water; in 1 Kings xiv. 15 we have the expression, "as a reed is shaken in the water;" Job xl. 21, "He lieth under the shady trees, in the covert of the reed, and fens." The bruised reed is referred to in Isaiah xlii. 3, and other places; and its fragile character is noticed in 2 Kings xviii. 21: "Now thou trustest upon the staff of this bruised reed, even upon Egypt, on which if a man lean, it will go into his hand, and pierce it: so is Pharaoh king of

Egypt unto all that trust in him." See also Isa. xxxvi. 6; Ezek. xxix. 6, 7. Judging from the names given by Greek and Roman authors to the plants of Syria and Egypt, we may conjecture that in these passages a species of *Arundo* was referred to, such as *Arundo Phragmites* (*Phragmites communis*) the common Reed, or *Arundo Donax*, the plant figured here. This plant belongs to the class Triandria and order Digynia of the Linnean system, and to the natural order Gramineæ, the grass family.

In the New Testament the word *Kalamos* is used as a translation of *Kaneh* in Matthew xii. 20. This word is the *Calamus* of the Latin, and from it we derive the term culm, applied to the stems of grasses. In Matthew xi. 7, and Luke vii. 24, our Lord, in speaking of John the Baptist, says to the people, "What went ye out into the wilderness to see? A reed [*Kalamos*] shaken with the wind?" Again, when the Roman soldiers mocked Jesus, it is said they "put a reed in his right hand," and "they took the reed, and smote him on the head" (Matt. xxvii. 29, 30; Mark xv. 19). A reed was used to raise up the vinegar on the sponge to the lips of the Saviour on the cross (Matt. xxvii. 48; Mark xv. 36); and John states that hyssop was also used—probably meaning that the sponge was put on a bunch of the hyssop shrub attached to a reed. The apostle John used the word *Calamus* to mean a pen made of a reed (3 John 13).

(See also BULRUSH and FLAG.)

FLAG.

(*Cyperus esculentus*—Lin.)

"Can the flag grow without water?"—Job viii. 11.

THE Hebrew word *Achu* occurs in Job viii. 11, and is translated *flag*—"Can the rush grow up without mire? can the flag [*Achu*] grow without water?" In this passage the word seems obviously to apply to an aquatic plant of some sort. In Genesis xli. 2, 18, however, the same word has been translated meadow—"And, behold, there came up out of the river seven well-favoured kine and fat-fleshed; and they fed in a meadow." In the latter passage the word, according to our translation, embraces the pasture or the moist meadow on the bank of the river on which the flag grew. Commentators think that the flag was a plant of the sedge family, and probably a species of *Cyperus* which furnished pasture for cattle. Hence the *Cyperus esculentus*—so called from its esculent qualities—has been conjectured to be the Flag of the Bible. This plant is given in the drawing. It belongs to the class Triandria order Monogynia of the Linnean system, and to the

natural order Cyperaceæ. The plant grows in the south of Europe, in Africa, and in the East. It produces tuberous roots which are nutritious, and which, when roasted, have been used as a substitute for coffee.

Another Hebrew word, *Suph*, has been translated *flag*. It is met with in Exodus ii. 5, 6, where Jochebed is represented as placing the little ark with Moses in the flags by the river's brink. Again, in Isaiah xix. 6, it is said, "The reeds and the flags [*Suph*] shall wither." In Jonah ii. 5 the word is rendered *weeds*—"The depth closed me round about, the weeds were wrapped about my head." Some have supposed that the word is applied to sea-weed in general. Lady Callcott is disposed to look upon it as referring to species of sea-wrack, such as *Zostera marina*, or *Caulinia oceanica*. The latter plants are thrown up by the tide in the form of numerous balls on the shores of the Mediterranean Sea. The rush-like covering of Florence flasks is made from *Zostera*. This plant is not a true sea-weed, but is in reality a flowering plant belonging to the natural order Naiadaceæ.

DOVES'-DUNG.

(*Ornithogalum umbellatum.*—Lin.)

"And the fourth part of a cab of dove's-dung was sold for five pieces of silver."
—2 KINGS vi. 25.

THE Hebrew *Chirionim*, or *Charei-yonim*, is met with in the passage in 2 Kings referred to in the above quotation, in which the famine in Samaria was so great that comparatively worthless articles of food were sold for a high price. The word has been translated literally *Doves'-dung*, the term *yonim* being a plural word meaning *doves*, and the prefix *charei*, sometimes put *dib*, means *dung*. Some commentators believe that the actual dung of pigeons is meant, and that the people were reduced to such straits as to be compelled to eat such offensive materials. It has been stated that in the famine in England in 1316 the poor actually ate pigeon's dung. Other commentators think that the cab of doves'-dung is part of a plant which received that name. The Arabs applied the term to certain vegetable productions. The plant figured has been called the Doves' dung plant on account of the green and white colour of its flowers, thus resembling pigeon's dung.

The plant (*Ornithogalum umbellatum*) is said to be abundant in Samaria. It belongs to the class Hexandria, order Monogynia, of the Linnean system, and to the natural order Liliaceæ, the Lily family. It grows abundantly in Europe as well as in the Levant. The cab is a measure equal to three English pints. The names of Bird's-milk and Common Star of Bethlehem are also given to the plant. As this ornithogalum is found in England, it might supply the pigeon's dung mentioned in the English famine. The bulb is used as an esculent in Syria and neighbouring countries. It was formerly eaten by the peasants in Italy.

MANDRAKE.

(*Atropa Mandragora.*—Lin. *Mandragora officinalis.*—Mill.)

"Reuben . . . . found mandrakes in the field."—GEN. xxx. 14.

THE Hebrew plural word *Dudaim* occurs in two passages in the Old Testament, and has been translated *Mandrakes.* The plant is described as growing in the fields, and as producing its fruit at the time of wheat harvest, or in May. "Reuben went, in the days of wheat-harvest, and found mandrakes in the field, and brought them unto his mother Leah. Then Rachel said to Leah, Give me, I pray thee, of thy son's mandrakes. And she said unto her, Is it a small matter that thou hast taken my husband? and wouldest thou take away my son's mandrakes also? And Rachel said, Therefore he shall lie with thee to-night for thy son's mandrakes. And Jacob came out of the field in the evening, and Leah went out to meet him, and said, Thou must come in unto me; for surely I have hired thee with my son's mandrakes. And he lay with her that night. And God hearkened unto Leah, and she conceived, and bare Jacob the fifth son." From this passage

it appears that the plant was considered as promoting conception. Again, in the Song of Solomon, allusion is made to the smell of the mandrakes, "The mandrakes give a smell, and at our gates are all manner of pleasant fruits" (vii. 13).

There have been numerous opinions as to the plant referred to in these passages. The Greek translators used the word *Mandragorai*, mandrakes, and *Mala Mandragoroon*, or apples of mandrakes, to express the Hebrew *Dudaim*. Hence the plant has been considered as the *Atropa Mandragora* of botanists. The plant possesses stimulant and narcotic qualities. It belongs to the class Pentandria, and order Monogynia, of the Linnean system, and to the natural order Solanaceæ, suborder Atropeæ, or Deadly-nightshade family. The leaves of the plant are coarse and lettuce-like, and they conceal the pale yellowish flowers which arise from the crown of the root. The root is large and spindle-shaped, and often divides in a forking manner. It has a resemblance to the human form, and hence the plant was sometimes called Anthropomorphon. The fruit resembles the potato-apple, and is of a pale orange colour. It seems to have been called sometimes *apple of love*. The plant occurs in Palestine, and has been noticed by recent travellers. The inhabitants reckon the fruit exhilarating, and as aiding in the procreation of children. There is a cucurbitaceous plant to which the name Dudaim is given, at

the present day. This is the *Cucumus Dudaim*, or apple-shaped melon, which has a fruit variegated with green and orange at first, and becoming yellow when ripe. The fruit has a very fragrant, vinous, musky odour, and contains a whitish, insipid pulp. Its qualities are very different from the mandrake.

There are some curious legends about the mandrake. It was thought that the man-like root, when torn from the ground, uttered shrieks,—

> " Shrieks, like mandrakes torn out of the earth,
> That living mortals hearing them, run mad."
>
> *Romeo and Juliet.*

In the Second Part of Henry VI. Shakespeare also alludes to this notion, when he makes Suffolk say,—

> " Would curses kill as doth the mandrake's groan."

In the old time of sorcery and magic the plant acquired a remarkable reputation, and was regarded with superstitious fear.

Its narcotic qualities are referred to by Shakespeare,—

> " Not poppy, nor mandragora,
> Nor all the drowsy syrups of the world
> Shall ever med'cine thee to that sweet sleep
> Which thou wou'dst yesterday."

Lady Callcott in her "Scripture Herbal" refers to these passages from Shakespeare, and gives some curious details in regard to the plant.

Another solanaceous plant, *Physalis Alkekengi*, winter cherry or Jews' cherry, has by some been regarded as yielding the fruit called Dudaim.

THISTLE.

(*Tribulus terrestris.*—Lin.)

"Do men gather figs of thistles?—Matt. vii. 16.

THE Hebrew word *Dardar*, and the Greek *Tribolos*, have been translated in the authorized version *Thistles*. When God cursed the earth for man's sin, he said, "Thorns also and thistles shall it bring forth to thee" (Gen. iii. 18); and in announcing judgment on Israel, the prophet says, "The thorn and the thistle shall come up on their altars" (Hos. x. 8). In these passages the word *dardar* is associated with *koz* or *kotz*, meaning *thorns*. Again, in the New Testament our Lord says, "Do men gather figs of thistles?" (Matt. vii. 16). The word *Tribolos* or *Tribulus* is translated *briers* in Hebrews vi. 8, "That which beareth thorns and briers is rejected." There is some difficulty in ascertaining what plant is meant. Some suppose that it is *Tribulus terrestris*, a plant which derives its name from the Greek name *Tribolos*. It is a prickly plant which grows along the surface of the ground. It is called *Caltrops*, in consequence of the spiny fruit resembling the machines formerly used to obstruct cavalry. It

grows in dry barren places in the East. This plant belongs to the class Octandria, and order Monogynia, of the Linnean system, and to the natural order Zygophyllaceæ, the Bean-caper family. Some commentators consider the plant as *Centaurea Calcitrapa*, one of the Composite plants; others take *Fagonia cretica* or *F. arabica*. Lady Callcott figures in her "Scripture Herbal" *Carduus arabicus*, a true species of thistle. There is no doubt that thistles are common in the Holy Land at the present day. Hasselquist noticed eight or ten different kinds of thistles on the road from Jerusalem to Rama, and one on Mount Tabor, along with the *Cynara Scolymus*, or the Artichoke, which belongs to the same order as Thistle. In bringing forth thistles, the land produces what is highly injurious to cultivation, for the down or pappus attached to the fruit scatters the seeds far and wide, and the plants thus produced choke all useful vegetation. In 2 Kings xiv. 9, as well as in 2 Chronicles xxv. 18, and in Job xxxi. 40, the Hebrew word used for thistles is not *dardar*, but *choach;* and this latter word is also translated *thorn* in Job xli. 2, Proverbs xxvi, 9, Song of Solomon ii. 2, Isaiah xxxiv. 13, and Hosea ix. 6. There can be no doubt that these names refer to noxious weeds which are connected with desolation and a curse. God's judgments on nations are indicated in many instances by the growth of thorns and thistles in the palaces of their kings, and the halls of their nobles.

HEMLOCK.

(AN UNKNOWN PLANT.)

"As hemlock in the furrows of the field."—Hos. x. 4.

THE Hebrew word *Rosh* has been variously translated in the authorized version of the Old Testament. In Hosea x. 4, it is translated *hemlock*, "Thus judgment springeth up as hemlock in the furrows of the field." So also in Amos vi. 12, "Ye have turned .... the fruit of righteousness into hemlock." In other passages the word is rendered *gall*, and it is often associated with wormwood. Thus, in Deuteronomy xxix. 18, it is said, "Lest there should be among you a root that beareth gall and wormwood." The prophet Jeremiah says, "The Lord our God .... hath given us water of gall to drink" (viii. 14); "Behold, I will feed them, even this people, with wormwood, and give them water of gall to drink" (ix. 15); "I will feed them with wormwood, and make them drink the water of gall" (xxiii. 15); "Remembering mine affliction and my misery, the wormwood and the gall" (Lam. iii. 19). In Psalm lxix. 21, it is said, "They gave me also gall for

my meat." In Deuteronomy xxxii. 32, allusion is made to "grapes of gall," and bitter clusters, as if the fruit of the plant was succulent like grapes, and grew in clusters. On this account some have supposed that it was a species of *Solanum*, such as *S. nigrum*. Celsius thinks that by the hemlock plant is meant the *Conium maculatum* of botanists, the *Cienta* of the Romans. This plant belongs to the class Pentandria, order Digynia of the Linnean system, and to the natural order Umbelliferæ. It has marked poisonous qualities. This opinion of Celsius seems to be founded on very slender data. This plant seems rather to have been marked for its bitterness than for its poisonous properties. The word *rosh* is in the New Testament rendered by the Greek word *chole*, meaning *gall* or *bile*, "They gave him vinegar to drink, mingled with gall" (Matt. xxvii. 34). Again, in Mark xv. 23, in place of gall the word myrrh is used, as indicating bitterness: "And they gave him to drink wine mingled with myrrh." There appears, then, to be no data by which we can determine the exact meaning of the term *rosh*.

CONCLUSION.

WE have thus endeavoured to give a condensed account of the trees, shrubs, and herbs mentioned in Scripture, so far as they can be determined by reference to the best scientific authorities. Although much has been done of late in removing doubts, there are still many difficulties which can only be solved by careful botanical and philological inquiries in eastern countries.

What an interesting field does the Holy Land present to the Christian man of science, and how valuable might his researches be in throwing light on our version of the Bible. True it is that in regard to the grand truths of salvation he that runs may read, and that the unlearned, under the guidance of God's Spirit, will find the inspired Word profitable for doctrine, for reproof, for correction, and for instruction in righteousness. But there are hidden treasures, the beauty of which are fully displayed only to the enlightened student who applies all the resources of science to their elucidation. We cannot too deeply investigate the words of the Bible, written as

they were by holy men who were moved by the Holy Ghost. Unless we have verbal inspiration we have nothing. The Book not merely contains a revelation from God, but it is, in its words and minutest details, even to the very plants, given by Him. The highest scientific talent may well be consecrated to the noble task of illustrating the Natural History of the Bible.

The unsettled state of Palestine renders the examination of its flora a matter of some risk, and hence there is not an opportunity for leisurely and carefully noting the plants which grow on spots hallowed by associations of the deepest interest. We may look forward to a time when that country, now so desolate, shall be again inhabited, and when its fertile soil will bring forth a luxuriant vegetation; when "instead of the thorn shall come up the fir-tree, and instead of the brier shall come up the myrtle-tree: and it shall be to the Lord for a name, for an everlasting sign that shall not be cut off" (Isa. lv. 13).

INDEX.